MODERN MEDICINE



Safe, gradual, prolonged vasodilation

Isn't that what you want for your hypertensive patients?



Nitranitol provides it . . . permitting hypertensives to resume more normal lives.

And . . . therapeutic dosages of NITRANITOL can be maintained over long periods of time . . . *without* frequent checkups . . . *without* worry about possible toxic effects.

Nitranitol is the universally prescribed drug in the management of essential hypertension.

NITRANITOL®

(brand of mannitol hexanitrate)

FOR SAFE, GRADUAL, PROLONGED VASODILATION



1. **When vasodilation alone is indicated**—*NITRANITOL.*
2. **When sedation is desired**—*NITRANITOL with PHENOBARBITAL.*
3. **For extra protection against hazards of capillary fragility**—*NITRANITOL with PHENOBARBITAL and RUTIN.*
4. **When the threat of cardiac failure exists**—*NITRANITOL with PHENOBARBITAL and THEOPHYLLINE.*
5. **For refractory cases of hypertension**— *NITRANITOL P.V. (Nitranitol, Phenobarbital, Veratrum Alkaloids*)*

*alkavervir

Eliminate the needle!

Sharp & Dohme

PENALEV®, Soluble Tablets Crystalline Potassium Penicillin G, dissolve promptly in liquids—particularly useful for administration to infants with regular bottle feedings. PENALEV Tablets obviate the discomfort resulting from injection therapy and the difficulty encountered in administering large, hard-to-swallow penicillin tablets currently in use. PENALEV Tablets are supplied in packages of 12, 24 and 100 (50,000 units), packages of 12 and 100 (100,000 units), and in packages of 12 (250,000 units). Sharp & Dohme, Philadelphia 1, Pennsylvania.

PENALEV®

Soluble Tablets Crystalline Potassium Penicillin G



Before Use of Riasol



After Use of Riasol

THE DOCTOR'S CHOICE

☒ RIASOL FOR PSORIASIS

A professional vote would elec **RIASOL** for local treatment of psor asis. Druggists from coast to coast ar reporting a steady increase in the num ber of **RIASOL** prescriptions.

Physicians have learned by clinica experience that **RIASOL** usually clear up or greatly improves the ugly ski patches in an average period of weeks. After that, recurrence is ofte minimized by continued applications.

Unlike many other products, **RIA SOL** is fully effective in all types psoriasis. It reaches and treats th actual cutaneous lesions located in th deeper epidermal layers.

RIASOL contains 0.45% mercur chemically combined with soaps, 0.5 phenol and 0.75% cresol in a washabl non-staining, odorless vehicle.

Apply daily after a mild soap bat and thorough drying. A thin invisibl economical film suffices. No bandage required. After one week, adjust t patient's progress.

Ethically promoted **RIASOL** is sup plied in 4 and 8 fld. oz. bottles pharmacies or direct.

MAIL COUPON TODAY—TEST RIASOL YOURSEL

SHIELD LABORATORIES Dept. MM 10-5
12850 Mansfield Ave., Detroit 27, Mich.

Please send me professional literature and generous clinical package of RIASOL.

.....M.D.....Street

City..... Zone...State.....

Druggist.....Address.....



RIASOL FOR PSORIASIS



to prevent attacks in angina pectoris

Effective in 4 out of 5 cases — Fewer anginal attacks were suffered by 78.4%[1] and 80%[2] of patients for whom Peritrate was prescribed on a continuing daily schedule. Taken regularly as a prophylactic measure (rather than when attack is present or imminent), Peritrate will often help to

1. reduce the number of attacks
2. reduce the severity of those attacks that are not prevented
3. reduce nitroglycerin dependence
4. increase exercise tolerance.

New, long-lasting oral vasodilator — Unlike older, shorter-acting nitrates, Peritrate is slowly absorbed and long-lasting, each dose providing 4 to 5 hours protection against attacks. It is virtually nontoxic. Mild, transitory side effects occur rarely and are easily controlled. Tolerance has not developed in patients studied

Dosage: Usually 1 tablet 3 or 4 times daily. Available in 10 mg. tablets in bottles of 100 and 500. Literature and samples on request.

1 Humphreys, P., et al.: Angiology 3:1 (Feb.) 1952.
2. Plotz, M.: N.Y. State J. Med 52:2012 (Aug. 15) 1952.

Peritrate® TETRANITRATE

(BRAND OF PENTAERYTHRITOL TETRANITRATE)

CHILCOTT *Laboratories, INC* MORRIS PLAINS, NEW JERSEY

FORMERLY THE MALTINE COMPANY

MODERN MEDICINE

THE JOURNAL OF DIAGNOSIS AND TREATMENT

Editorial Staff

Walter C. Alvarez, M.D., *Editor-in-Chief*

James B. Carey, M.D., *Associate Editor*
Thomas Ziskin, M.D., *Associate Editor*
Maurice B. Visscher, M.D., *Associate Editor*
Reuben F. Erickson, M.D., *Associate Editor*

Mark S. Parker, *Executive Editor*
Sarah A. Davidson, *Managing Editor*
James Niess, *Editorial Board Secretary*
Inga Platou, *Art Editor*

Editorial Assistants: Elizabeth Kane, Lorraine Hannon, Mary Worthington, Belle Rockwood, Patsy L. Gallagher, Swanhild N. Berg

Science Writers: F. J. Bollum, Paul D. Erwin, M.D., James F. Etzell, William Evers, M.D., Thomas Gibbons, M.D., Dennis J. Kane, Bernardine Lufkin, L. D. MacLean, M.D., Shanna McGee, Robert I. Shragg, M.D., Norman Shrifter, M.D., W. Lane Williams, M.D.

Editorial Consultants

E. R. Anderson, M.D., SURGERY
Joe W. Baird, M.D., ANESTHESIOLOGY
S. Steven Barron, M.D., PATHOLOGY
George Bergh, M.D., SURGERY
William C. Bernstein, M.D., PROCTOLOGY
Lawrence R. Boies, M.D., OTOLARYNGOLOGY
Edward P. Burch, M.D., OPHTHALMOLOGY
C. D. Creevy, M.D., UROLOGY
C. J. Ehrenberg, M.D., OBSTETRICS AND GYNECOLOGY
W. K. Haven, M.D., OPHTHALMOLOGY
Ben I. Heller, M.D., INTERNAL MEDICINE
Miland E. Knapp, M.D., PHYSICAL MEDICINE
Ralph T. Knight, M.D., ANESTHESIOLOGY
Frederic J. Kottke, M.D., PHYSICAL MEDICINE
Elizabeth C. Lowry, M.D., PEDIATRICS
John F. Pohl, M.D., ORTHOPEDICS
Wallace P. Ritchie, M.D., NEUROSURGERY
M. B. Sinykin, M.D., OBSTETRICS AND GYNECOLOGY
A. V. Stoesser, M.D., ALLERGY
Arthur L. H. Street, LL.B., FORENSIC MEDICINE
Marvin Sukov, M.D., PSYCHIATRY
Harry A. Wilmer, M.D., NEUROLOGY

MODERN MEDICINE, The Journal of Medical Progress, of Minneapolis, Minn., is published twice monthly on the first and fifteenth of each month, at 55 East 10th Street, St. Paul 2, Minn. Subscription rate: $10.00 a year, 50c a copy.

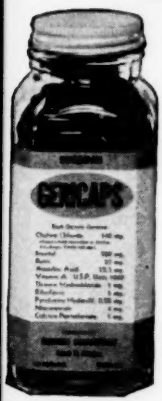
Address all correspondence to 84 South 10th Street, Minneapolis 3, Minn.

Acceptance under section 34.64, P. L. & R., authorized.

"Adoption of these control measures now is warranted by the evidence so far obtained" . . .

GERICAPS

(SHERMAN)



h capsule supplies the true ·tropics (choline and inositol) ·roximately equivalent to one m—choline dihydrogen cit·, also Vitamin A and the B-nplex factors, together with n and Vitamin C in adequate ounts.

• The Gericaps formula makes possible a double use (Prophylactic and therapeutic) in the management of conditions of impaired metabolism of fat and cholesterol.

The lipotropics in Gericaps enter into the bio-synthesis of phospholipids, helping to bring about a better *balanced ratio* of cholesterol and phospholipids, which has been suggested as more important than the actual cholesterol level itself.

The low fat and cholesterol diet indicated is supplemented with adequate vitamins in the Gericaps formula, to compensate for the possible deficiencies caused by this restricted diet.

Gericaps contain therapeutic amounts of the factors to combat capillary weakness (rutin and Vitamin C) so often associated with abnormal cholesterol and fat metabolism.

SHERMAN LABORATORIES

BIOLOGICALS • PHARMACEUTICALS

WINDSOR DETROIT 15, MICH. LOS ANGELES

MODERN MEDICINE

THE JOURNAL OF DIAGNOSIS AND TREATMENT

National Editorial Board

George Baehr, M.D., *New York City*, INTERNAL MEDICINE
James T. Case, M.D., *Chicago*, RADIOLOGY
Franklin D. Dickson, M.D., *Kansas City*, ORTHOPEDICS
Arild E. Hansen, M.D., *Galveston*, PEDIATRICS
Julius H. Hess, M.D., *Chicago*, PEDIATRICS
Walter B. Hoover, M.D., *Boston*, OTOLARYNGOLOGY

John C. Krantz, Jr., PH.D., *Baltimore*, PHARMACOLOGY
A. J. Lanza, M.D., *New York City*, INDUSTRIAL MEDICINE
Milton S. Lewis, M.D., *Nashville*, OBSTETRICS AND GYNECOLOGY
George R. Livermore, M.D., *Memphis*, UROLOGY
Francis W. Lynch, M.D., *St. Paul*, DERMATOLOGY
Cyril M. MacBryde, M.D., *St. Louis*, INTERNAL MEDICINE

Karl A. Meyer, M.D., *Chicago*, SURGERY
J. A. Myers, M.D., *Minneapolis*, INTERNAL MEDICINE
Alton Ochsner, M.D., *New Orleans*, SURGERY
Robert F. Patterson, M.D., *Knoxville*, ORTHOPEDICS
Edwin B. Plimpton, M.D., *Los Angeles*, ORTHOPEDICS
Fred W. Rankin, M.D., *Lexington, Ky.*, SURGERY

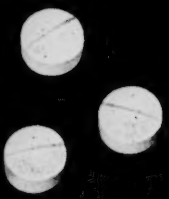
John Alton Reed, M.D., *Washington*, INTERNAL MEDICINE
Rufus S. Reeves, M.D., *Philadelphia*, INTERNAL MEDICINE
Leo Rigler, M.D., *Minneapolis*, RADIOLOGY
Dalton K. Rose, M.D., *St. Louis*, UROLOGY
Howard A. Rusk, M.D., *New York City*, PHYSICAL MEDICINE
Roger S. Siddall, M.D., *Detroit*, OBSTETRICS

James S. Simmons, M.D., *Boston*, PUBLIC HEALTH
W. Calhoun Stirling, M.D., *Washington*, UROLOGY
Frank P. Strickler, M.D., *Louisville*, SURGERY
Richard Torpin, M.D., *Augusta, Ga.*, OBSTETRICS
Robert Turell, M.D., *New York City*, PROCTOLOGY
Dwight L. Wilbur, M.D., *San Francisco*, INTERNAL MEDICINE

Paul M. Wood, M.D., *New York City*, ANESTHESIOLOGY
Irving S. Wright, M.D., *New York City*, INTERNAL MEDICINE

for the more common bacterial infectious diseases

Oral Penicillin t.i.d.



Pentids

Squibb 200,000 Units Penicillin G Potassium Tablets

effective

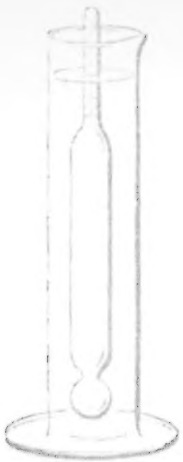
convenient

fewer side effects

economical



SQUIBB



as important as urinalysis

"...frequent and accurate supervision of maternal nutrition is of equal or greater importance than of any other prenatal service including taking the blood pressure and examination of the urine."[1]

Hyman[2] has emphasized that the best safeguard of maternal health and normal fetal development is a good state of nutrition.

OBRON furnishes a convenient means of meeting the increased nutritional demands of pregnancy and lactation.

OBRON contains 8 Vitamins, 11 Minerals, and Trace Elements to safeguard maternal health and promote normal fetal development.

1. Tompkins, W. T., cited by Allen, E. D.: The Increased Demands of the Maternal Organism by Pregnancy, Chicago M. Soc. Bull. 52-832 (Apr. 8) 1950, p. 833.
2. Hyman, H. T.: An Integrated Practice of Medicine. (Philadelphia and London: W. B. Saunders Co.) 1946, Vol. 3, p. 2629.

ALL IN ONE CAPSULE

Dicalcium Phos. Anhydrous*	768 mg.
Ferrous Sulfate U.S.P.	64.8 mg.
Vitamin A	5,000 U.S.P. Units
Vitamin D	400 U.S.P. Units
Thiamine Hydrochloride	2 mg.
Riboflavin	2 mg.
Pyridoxine Hydrochloride	0.5 mg.
Ascorbic Acid	37.5 mg.
Niacinamide	20.0 mg.
Calcium Pantothenate	3.0 mg.
Cobalt	0.033 mg.
Copper	0.33 mg.
Iodine	0.05 mg.
Manganese	0.33 mg.
Magnesium	1.0 mg.
Molybdenum	0.07 mg.
Potassium	1.7 mg.
Zinc	0.4 mg.

*Equivalent to 15 gr. Dicalcium Phosphate Dihydrate.

Available at all Pharmacies



OBRON

for the *OB* patient

J. B. ROERIG AND COMPANY, 536 LAKE SHORE DRIVE, CHICAGO 11, ILL.



TABLE OF CONTENTS

LETTER FROM THE EDITOR..... 28

CORRESPONDENCE..... 30

QUESTIONS & ANSWERS..... 42

FORENSIC MEDICINE..... 48

WASHINGTON LETTER..... 60

MODERN MEDICINE EDITORIALS

Roentgen Therapy and Cancer of the Breast
Walter C. Alvarez..... 71

Intractable Hiccups
Walter C. Alvarez..... 72

MEDICINE

Diagnosis of Pericarditis
George R. Herrmann, Georgeanna H. Greer, Milton R. Hejtmancik, and Ernesto J. Marchand..... 73

Pleural Effusion..... 74

Diabetic Amputees..... 74

Status of Blood Substitutes
Edwin J. Pulaski..... 75

Proteus and Pseudomonas Infections
Ellard M. Yow..... 77

Acute Disseminated Lupus Erythematosus
Louis J. Soffer and Richard Bader.. 78

for

October 1

1952

Modern Medicine

Vol. 20, No. 19

THE MAN ON THE COVER is Dr. George R. Herrmann of Galveston, Professor of Medicine and Director of the Heart Station and Cardiovascular Service of the University of Texas Medical Branch. A member of numerous American medical organizations, including the American Society for Clinical Investigation, American Heart Association, National Academy of Medicine of Mexico, and the Cardiology Society of Brazil, Dr. Herrmann is also director of the Inter-American Cardiology Society. He has contributed over 200 articles to medical journals and is author of *Methods in Medicine*, *Clinical Case Taking*, and *Synopsis of Diseases of the Heart and Arteries*. The report on page 73, "Diagnosis of Pericarditis," originally appeared in the *American Heart Journal*.



Contents for October 1 1952

CONTINUED



Whither Tuberculosis?
Godias J. Drolet and Anthony M. Lowell 79

Coumarin-induced Hypoprothrombinemia
Robert Stragnell 80

Shoulder Disability with Coronary Disease
Joseph B. Cady 81

Technic for Splenic Puncture
Jyoti B. Chatterjea, Carlos Meza Arrau, and William Dameshek 82

Hydrocortisone for Rheumatoid Arthritis
Edward W. Boland 83

Guaiac Test for Occult Blood
C. Lawrence Holt 84

Crystalline Khellin for Angina
L. A. Nalefski, W. B. Rudy, and N. C. Gilbert 85

Inhalation Test for Asthma
Irving W. Schiller and Francis C. Lowell 86

SURGERY

Nerve Block for Postoperative Pain
W. J. Puderbach and H. E. Shaftel .. 87

Cancer and Chronic Ulcerative Colitis
Sadao Otani and Isidore Snapper ... 88

Intestinal Polyposis with Pigmentation
H. H. Wolff 89

Management of Chronic Leg Ulcers
A. M. Boyd, R. P. Jepson, A. Hall Ratcliffe, and S. S. Rose 91

Carcinoids of the Colon 92

Stab Wound Ileostomy
Frank H. Lahey 93

PROCTOLOGY

Plastic Rectal Speculums 94

ORTHOPEDICS

Indications for Disk Operation
J. Albert Key 95

ere is only one **Phospho-Soda** *(fleet)*

—safe and effective whenever laxation is indicated

Phospho-Soda (fleet) is a solution containing in each 100 cc. sodium biphosphate 48 Gm. and sodium phosphate 18 Gm. Both 'Phospho-Soda' and 'Fleet' are registered trademarks.

C. B. FLEET CO., INC.
LYNCHBURG, VIRGINIA

Accepted for advertising by the Journal of the American Medical Association

Contents for October 1 1952

CONTINUED



OBSTETRICS & GYNECOLOGY

Hypertension and Toxemia of Pregnancy
N. S. Assali, J. M. Vergon, Y. Tada, and S. T. Garber 96

Vaginal Disease: Recognition and Therapy
H. Close Hesseltine 97

Climacteric Symptoms 98

Ectopic Pregnancy with Severe Hemorrhage
Bernard J. Pisani 99

Terramycin for Purulent Vaginitis
O. Allemann and F. Ludwig 100

PSYCHIATRY

Diagnosis of Depressive Reactions
M. D. Friedman and Eugene E. Levitt 101

PEDIATRICS

Thyroid Cancer 102

Allergy to Vaccines 102

Early Recognition of Cerebral Palsy
Meyer A. Perlstein and Harry E. Barnett 103

Tetanus and Diphtheria 104

Laryngeal Stridor in Infancy
T. G. Wilson 105

UROLOGY

Ureteral Complications 106

Five Years after Prostatectomy
Elmer Hess, Russell B. Roth, and Anthony F. Kaminsky 107

Pain from Aberrant Renal Arteries
Nelse F. Ockerblad 108

PHYSICAL MEDICINE

Respiratory Problems of Poliomyelitis
Elizabeth Austin, Clarence W. Dail, David Rubin, Albert G. Bower, and Ruth Nygren Ackley 109

(Continued on page 18)

Fellows
COMPOUND
Syrup
w/
IRON
QUININE
STRYCHNINE



This is straight talk...

FELLOWS Syrup has yet to be equalled as a *stimulant* and *bitter tonic.*

FELLOWS Syrup is: Especially valuable for *Geriatric patients* and during convalescence.

FELLOWS Syrup *will*

- *STIMULATE APPETITE*
- *IMPROVE MUSCLE TONE*
- *PRODUCE EUPHORIA ALMOST INSTANTANEOUSLY*
- *ELEVATE THE MOOD WITHOUT AFTER DEPRESSION*

Economically priced...about 2c per dose to patient

Available: 7 and 14 oz. Bottles

Samples? Of course, on your request!

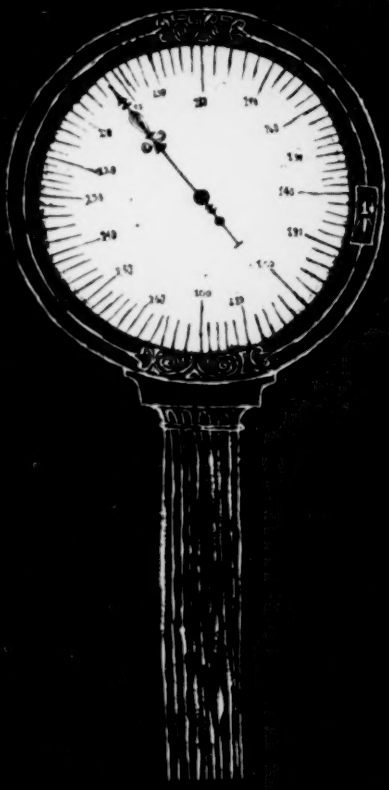
Fellows
MEDICAL MFG. CO., INC.
Pharmaceuticals

pharmaceuticals since 1880

St. Christopher Street
New York 14, N. Y.



both fattening *and*



palatable

Lipomul-Oral

A product of

Upjohn

for Medicine . . . Produced with care . . . Designed for health

Contents for October 1 1952

CONTINUED



DERMATOLOGY

Polymyxin B and Bacitracin.....110

Itching in Tension States
C. D. Calnan and Desmond O'Neill 111

Fungous Disease from Cattle and Horses
Otis Field Jillson and William R. Buckley.....112

MEDICAL FILM

Glaucoma 113

ANESTHESIOLOGY

Trilene Analgesia in Plastic Surgery
K. L. Pickrell, C. R. Stephen, T. R. Broadbent, F. W. Masters, and N. G. Georgiade.....118

RADIOLOGY

Pressure Mark Artefacts.....119

EXPERIMENTAL MEDICINE

Homografts of Fetal Membranes for Large Wound Surfaces
Beverly Douglas.....120

BOOK CHAPTER

Roentgen Diagnosis of Hiatus Hernia
Max Ritvo and I. A. Shaufler.....122

MEDICAL FORUM

Oxycel and Bag Catheter in Prostatectomy 134

Coagulation Hematomas of the Placenta 144

DIAGNOSTIX 154

BASIC SCIENCE BRIEFS.....161

SHORT REPORTS.....164

CURRENT BOOKS AND PAMPHLETS 196

PATIENTS I HAVE MET.....200

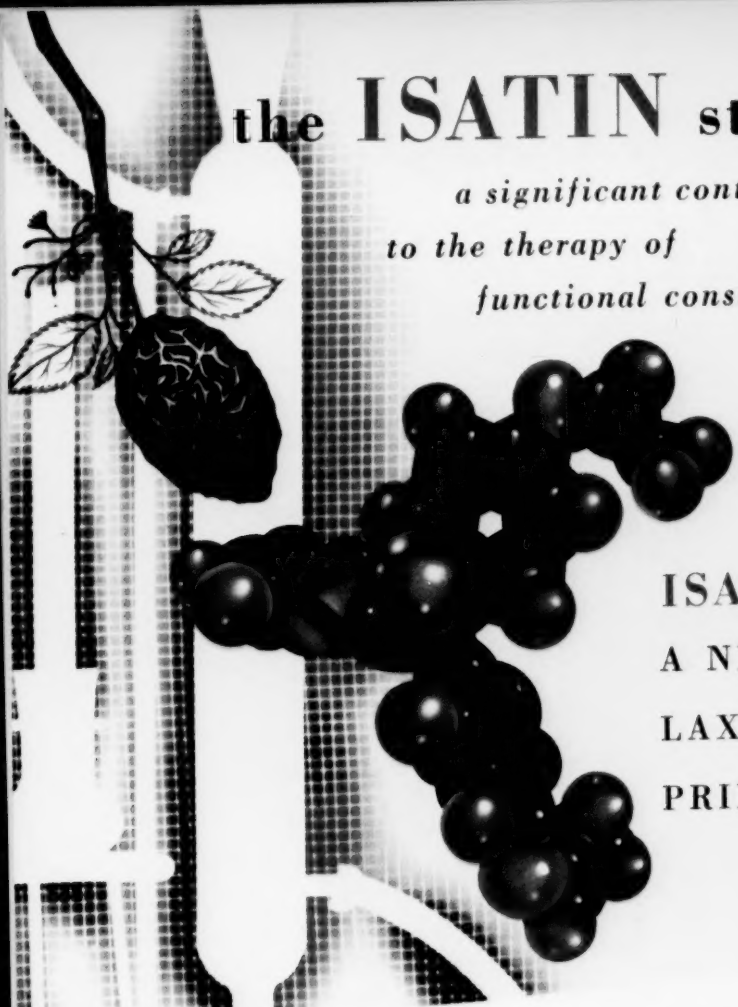
Copyright 1952 by Modern Medicine Publications, Inc. Title Reg. U. S. Pat. Off.
Copyrighted in Mexico, authors' rights protected in Mexico—Reproduction thereof forbidden.

Business Manager: M. E. Herz.

Address editorial correspondence to 84 South 10th Street, Minneapolis 3, Minn. Telephone: Bridgeport 1291. ADVERTISING REPRESENTATIVES: New York 17: Lee Klemmer, George Doyle, Bernard A. Smiler, John Winter, 50 East 42nd Street, Suite 401. Telephone: Murray Hill 2-8717. CHICAGO 6: Jay H. Herz, 20 North Wacker Drive, Suite 1921. Telephone: Central 6-4619. SAN FRANCISCO 4: Duncan A. Scott & Co., Mills Bldg. Telephone: Garfield 1-7950. LOS ANGELES 5: Duncan A. Scott & Co., 2978 Wilshire Blvd. Telephone: Dunkirk 8-4151.

the ISATIN story

a significant contribution to the therapy of functional constipation



ISATIN
A NEW LAXATIVE PRINCIPLE

On the following seven pages you will read of the development by The Harrower Laboratory, Inc. of an ideal therapeutic agent for functional constipation; and of the physiological, pharmacological and clinical studies which proved its effectiveness.



ISATIN

SCIENCE DISCOVERS WHAT NATURE HAS KNOWN

From prunes, Nature's own laxative food, has come the answer to functional constipation.

In 1950, after 3 years of intensive investigation, a Harrower research team isolated and identified a diphenyl isatin as the principal laxative component of prunes.[1] A synthetic analogue of the isatin identified in prunes was then evaluated. Like Nature's Isatin, it was found to supplement the colloidal and emollient effects of prunes by gently stimulating peristalsis, and did so without any undesirable side effects.

The formula of this ISATIN is:

Diacetylhydroxyphenylisatin

Additional pharmacological, physiological and clinical investigations over a 2 year period have shown that:

This **ISATIN**
is not absorbed; it is eliminated 100% in the feces.

This **ISATIN**
is effective in small dosage.

This **ISATIN**
gently stimulates peristalsis; it does not irritate.

THE PHYSIOLOGY OF FUNCTIONAL CONSTIPATION

The basic physiological abnormality in functional constipation is *subnormal peristalsis*. The musculature of the constipated colon is thinned and atonic and cannot be sufficiently activated by the reflex stimulation produced by the intestinal contents. Regardless of their bulk or consistency, the intestinal contents alone cannot stimulate sufficient colonic motility. Adequate propulsion can be induced only by therapeutic use of an activating principle.



RATIONALE OF THERAPY

These physiological facts have long been recognized. The problem has been to discover a safe activating agent. Until the isolation and identification of ISATIN by The Harrower Laboratory, Inc., all known agents, such as phenolphthalein and cascara, produced undesirable, harmful side effects. *ISATIN, however, provides the essential gentle stimulation of peristalsis without any undesirable side effects.*

PHARMACOLOGY

ISATIN is the only known safe and effective peristaltic stimulant. The following chart of comparative pharmacology shows its definite and distinct superiority over other agents.

COMPARATIVE PHARMACOLOGY

	ISATIN*	PHENOLPHTHALEIN	CASCARA
PHYSIOLOGICAL ACTIVITY	**Stimulates intestinal mucosa**[2]	Irritation of colon, increasing[3] frequency of contraction rings	Irritation of colon, increasing[4] frequency of contraction rings
INTENSITY OF ACTION	**Mild**[5]	Medium[3]	Medium[4]
SIDE EFFECTS	**No side effects**[11]	Entero-colitis, dermatitis and other allergic and hemorrhagic tendencies[4]	Melanotic pigmentatio of mucosa[4] Nausea and griping
ABSORPTION	**None**[7]	Partial (about 15% in intestine)[3]	Partial, in intestine[3]
EXCRETION	**Feces**[7]	In urine conjugated with sulfates[3] Partially unchanged in large doses	In urine as glucuronic in milk unchanged[3] Feces
DEVELOPMENT OF TOLERANCE	**None**[8]	With continued dosage[6]	With continued dosag
DOSAGE	**5 mg.**[9]	60 mg.[10]	300 mg. (Po-Extract)

*Diacetylhydroxyphenylisatin

FORMULATION OF PRULOSE COMPLEX

ISATIN, the new laxative principle which activates physiologically and is pharmacologically safe, has been combined with prune concentrate and moist bulking agents to produce the therapeutically rational laxative—PRULOSE COMPLEX. Extensive clinical studies have shown PRULOSE COMPLEX to be an ideal agent for the correction of functional constipation.

CLINICAL EVALUATION

A recently published clinical evaluation[11] of PRULOSE COMPLEX, Isatin-activated moist bulk, showed that colonic motility was considerably enhanced in all patients without any undesirable side effects.

One hundred eighty barium X-ray studies were performed. The following two cases illustrate the results of therapy with PRULOSE COMPLEX, as evaluated by X-rays.

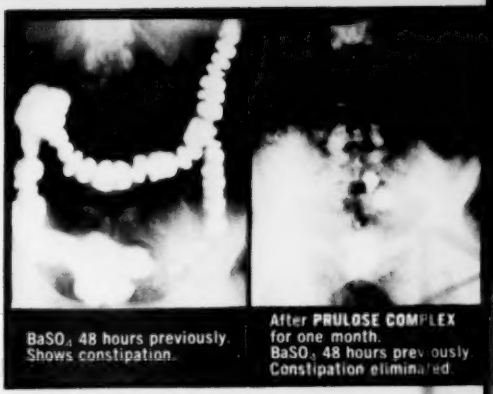
Case	Sex	Age
R.I.	F	54

Chief Complaint

Marked prolonged constipation; obesity.
Duration—life-long.
Therapy PRULOSE COMPLEX

Results

Excellent.
Defecates regularly; normal stool; "most grateful".



$BaSO_4$ 48 hours previously. Shows constipation.

After **PRULOSE COMPLEX** for one month. $BaSO_4$ 48 hours previously. Constipation eliminated.

Constipated patients who had ingested barium 48 hours before X-ray examination showed in these films that the barium was distributed through the colon, with a tendency towards stasis in the cecum and transverse colon.

The same constipated patients, after receiving PRULOSE COMPLEX for one month, when X-rayed again 48 hours after the ingestion of barium, showed that the barium was either already evacuated or confined to the distal portion of the large intestine. This indicated that normal bowel tonicity and motility had been restored. The medication proved to be clinically and roentgenologically effective, and no untoward effects were observed.

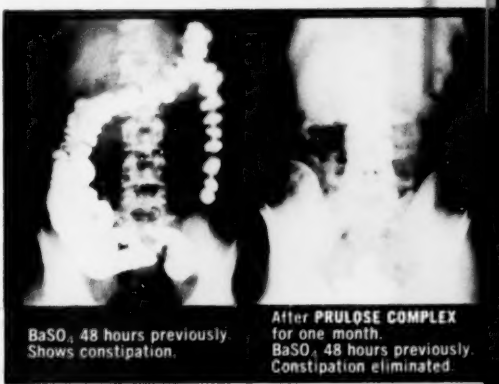
Case	Sex	Age
L.E.	M	21

Chief Complaint

Constipated and "tired".
Due to chronic illness of ten years' duration.
Therapy PRULOSE COMPLEX

Results

No longer constipated.
Gained 8 lbs. in weight.
No longer tired.

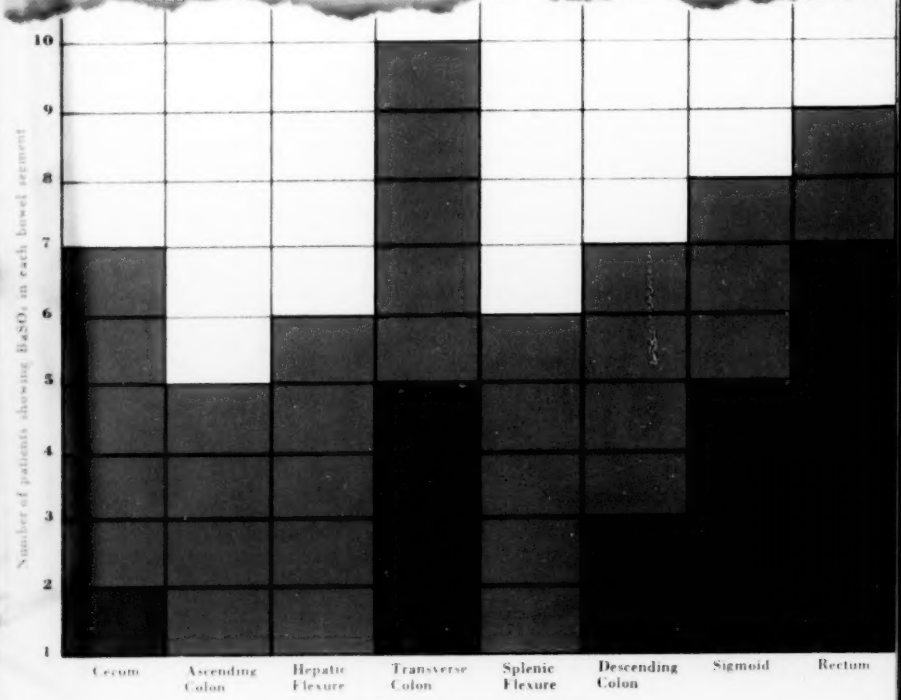


$BaSO_4$ 48 hours previously. Shows constipation.

After **PRULOSE COMPLEX** for one month. $BaSO_4$ 48 hours previously. Constipation eliminated.

The following graph illustrates the number of patients whose X-rays showed barium in each large bowel segment. The **red** indicates the number of patients with barium in each bowel segment before treatment with PRULOSE COMPLEX. The **blue** illustrates the markedly decreased number of patients showing barium in each bowel segment after one month of PRULOSE COMPLEX **therapy.**

PRULOSE COMPLEX increased colonic motility so that most of the barium was propelled into the distal bowel segments or **evacuated completely.**



This clinical study proved that PRULOSE COMPLEX Isatin-activated moist bulk, provides the stimulation of peristalsis necessary to correct functional constipation and does so without any undesirable side effects.

PRULOSE® COMPLEX, *moist bulk*

activated with Isatin, the new laxative principle, is available in both liquid and tablet dosage.

Both **PRULOSE COMPLEX** dosage forms are the only Isatin-activated moist bulk laxatives.

Both **PRULOSE COMPLEX** dosage forms provide pharmacologically safe and clinically effective therapy for functional constipation.

Both **PRULOSE COMPLEX** dosage forms may be used safely in all age groups. The flavorful liquid is ideal for pediatric and geriatric patients.

DOSAGE: 1 or 2 tablespoonfuls of liquid, or 3 or more tablets, with a full glass of water, twice daily, preferably after breakfast and before retiring, until normal elimination is established. The dosage may then be reduced.



NOTE: Sufficient water should be taken with each dose and a high fluid intake maintained throughout the day.

FLAVORFUL LIQUID





Each 15 cc. (approximately one tablespoonful) of **PRULOSE COMPLEX LIQUID** *contains:*

Liquid Prune Concentrate (70% solids)	52 gr. (3.37 gm.)
Diacetylhydroxyphenylisatin	1/32 gr. (0.002 gm.)
Carboxymethylcellulose, Sodium	11.5 gr. (0.75 gm.)

CONVENIENT TABLETS



Each **PRULOSE COMPLEX** *Tablet contains:*

Dehydrated Prune Concentrate	2.0 gr. (0.13 gm.)
Diacetylhydroxyphenylisatin	1/65 gr. (0.001 gm.)
Methylcellulose	6.0 gr. (0.39 gm.)

The new therapeutic agent, **PRULOSE COMPLEX**, offers these distinctive advantages:

1. A new laxative principle, Isatin, which has been proven to be physiologically active, pharmacologically safe and clinically effective.

2. A therapeutically rational approach to the problem of normalizing the function of the constipated colon.

Only

ISATIN

a. gently and mildly stimulates subnormal peristalsis.

b. is excreted 100% in the feces, with no absorption. Its action is limited to the colon.

c. is free of all undesirable side effects.

Only

PRULOSE COMPLEX

combines Isatin-activated moist bulk with a natural prune concentrate base.

Only

PRULOSE COMPLEX

provides safe activation—without irritation—without side effects.

Availability:
Pleasant-tasting, palatable PRULOSE COMPLEX LIQUID is available in bottles of 12 fl. oz. PRULOSE COMPLEX Tablets are available in bottles of 100 tablets.



References:
1. Baum et al., J. Am. Pharm. A. (Scient. Ed.), Vol. XL, No. 7, July 1951, p. 348. 2. Guggenheim, Schweiz. med. Wchnschr. 55:16 (1925). 3. Solimann, A Manual of Pharmacology, 7th Ed. 4. Goodman, Gilman, The Pharmacological Basis of Therapeutics, 1st Ed. 5. Fuld and Tugenreich, Arch. Verdauungskrank. 37:59 (1926). 6. Nat. Disp., 24th Ed. 7. Sanders et al., J. Am. Pharm. A. (Scient. Ed.), Vol. XL, No. 7, July 1951, p. 340. 8. L. K. Ungar, Vien. Med. Weekly, 21:697 (1929). 9. The Merck Index, Merck and Co., 5th Ed. 10. Pharm. of the U.S., 14th Ed. 11. A. X. Rossien, An Evaluation of the Effect of a New Isatin Compound on Colonic Motility Via Roentgenologic Study, Rev. Gastroenterol., Vol. XIX, No. 6, June 1952.

MEMO

On these 8 pages we have presented the story of Isatin, the new natural laxative principle available only in **PRULOSE COMPLEX**. We would like to provide you with a clinical supply of the tablets and the new flavorful liquid for a trial in your own practice.

Simply write "ISATIN" on a prescription blank or your stationery and send it to The Harrower Laboratory, Inc. for your supply of **PRULOSE COMPLEX LIQUID & PRULOSE COMPLEX** Tablets and additional reprints on Isatin.



the Harrower Laboratory inc.

930 newark avenue • jersey city 6, n. j.

©1952 T.H.L.I

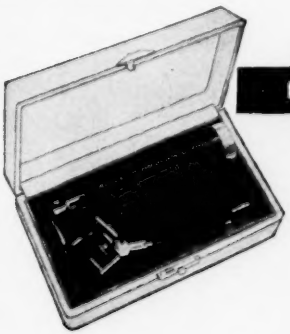
261-262-66-I
LITHO IN U. S. A

Brilliant Illumination for Speedier Diagnosis



ARC-VUE OTOSCOPE

This fine instrument provides the brightly lighted field so important to fast, easy diagnosis and so vital in surgery. In addition, the swinging arc of the speculum mount is so devised as to give a 36% larger operative field than previous instruments. Head includes tongue depressor holder and 4 specula, including nasal. In attractive, durable case.



HAND DIAGNOSTIC SET

Designed for maximum speed and ease of use. Includes Arc-Vue Otoscope with 4 specula, and May Ophthalmoscope, battery handle and extra lamp, in durable carrying case.

BAUSCH & LOMB

OPTICAL COMPANY B&L ROCHESTER 2, N.Y.

Hand Diagnostic INSTRUMENTS

LETTER FROM THE EDITOR

Dear Reader:

This is the time of the year when the members of the editorial staff of *Modern Medicine* double in brass. They start work on the *Modern Medicine Annual* for 1953.

All the material published this year is being reorganized for the *Annual*. A comprehensive index is being prepared to make every bit of clinical information immediately available to you. Improvements both in the arrangement of the material and in the index classifications have been worked out to provide a volume of utmost usefulness in the day-to-day practice of medicine. Incidentally, it is only in the *Annual* that an index will be available to the work published in 1952.

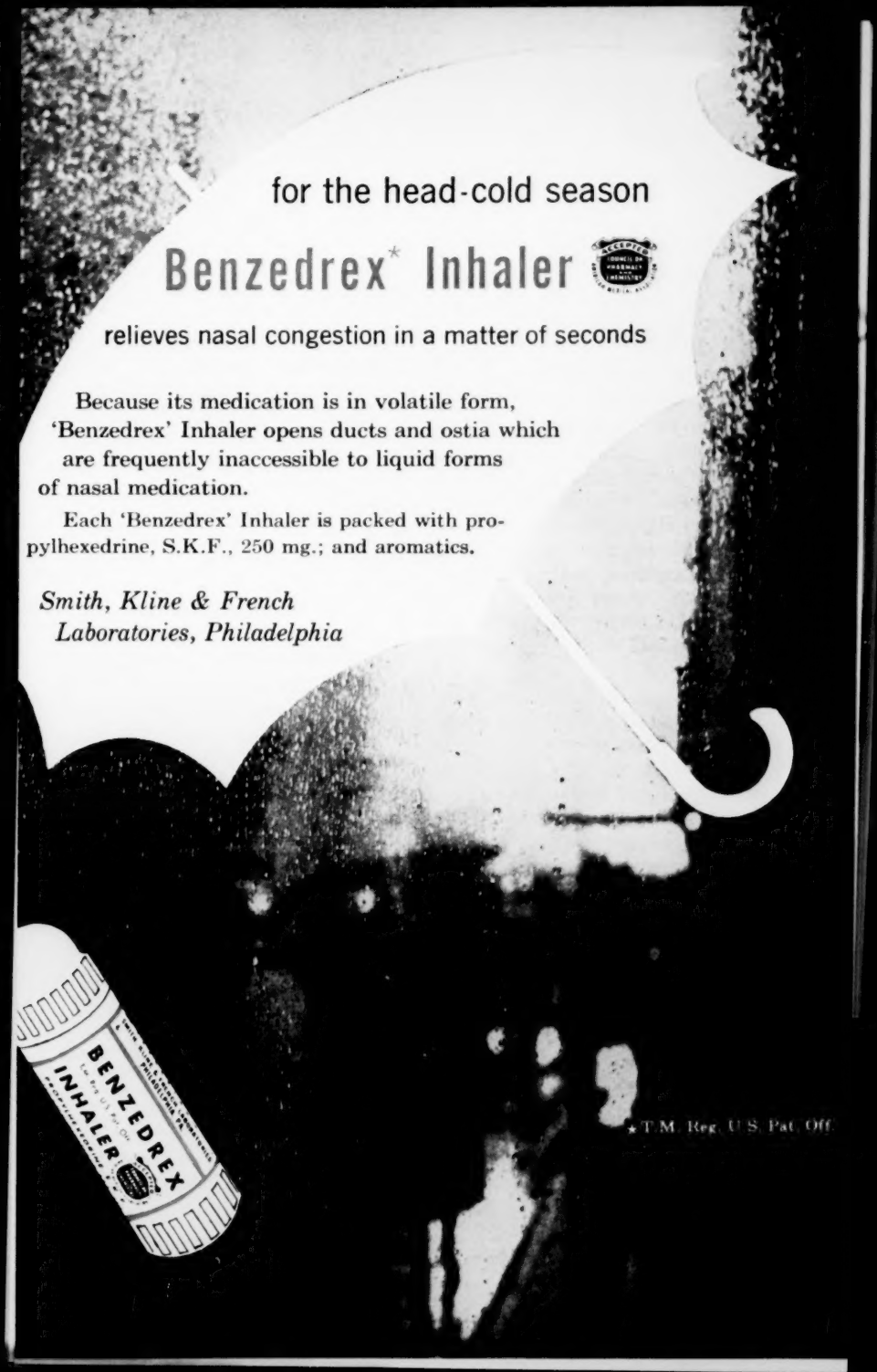
Every doctor who has purchased a *Modern Medicine Annual* in the past will order a copy of the forthcoming volume. Many more, we are sure, will wish to become acquainted with the book. Our problem is to estimate how many will be disappointed if they do not receive copies.

The *Annual* is an expensive book to produce. We hesitate to print more copies than will be used, but we want to have enough to go around. You can help us with our dilemma if you will reserve your copy now. As an inducement to early action, our publisher has made a special prepublication price of $6.00. After publication the price will be $7.50. This money-saving offer is available only to the physician who reserves a copy before the book is out. A more compelling reason for making the reservation, however, is that it affords the only assurance that you will receive your *Annual*.

The new volume is one that you will want to keep at hand in your office. To make sure that you get your copy of one of the most useful books in the medical field, send in your reservation today.

Walter C. Alvarez

EDITOR-IN-CHIEF


for the head-cold season
Benzedrex* Inhaler
ACCEPTED
relieves nasal congestion in a matter of seconds
Because its medication is in volatile form, 'Benzedrex' Inhaler opens ducts and ostia which are frequently inaccessible to liquid forms of nasal medication.
Each 'Benzedrex' Inhaler is packed with propylhexedrine, S.K.F., 250 mg.; and aromatics.
Smith, Kline & French Laboratories, Philadelphia
BENZEDREX
INHALER
* T.M. Reg. U.S. Pat. Off.

Correspondence

Communications from the readers of MODERN MEDICINE *are always welcome. Address communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

Abuse of Language

TO THE EDITORS: No medical educator would tolerate a system which taught the medical specialties without putting the student through the stringent discipline of the anatomy textbook, the microscope, and the dissecting room. The idea of graduating a class of doctors devoid of any knowledge of the developmental history, present structure, and functioning of the human organism would horrify the medical educator.

The lay educator has no such scruples. Banished from the grade and high schools of twentieth century America are spelling, grammar, etymology, syntax, and composition, to say nothing of the study of those languages from which so much of our own is derived. To replace them, we have the "flash card," the "project," and a host of manual, musical, and recreational crafts and diversions.

The American is no longer at home in his own language. His everyday vocabulary is scanty and mean, and when making a public appearance, in person or in print, he is awkward and verbose. Endeavoring to conceal the gaps in his basic education, he turns to the use of long and imposing words, of whose exact meaning he is, unfortunately, not aware, and to long and involved sentences in whose structure he becomes forever lost.

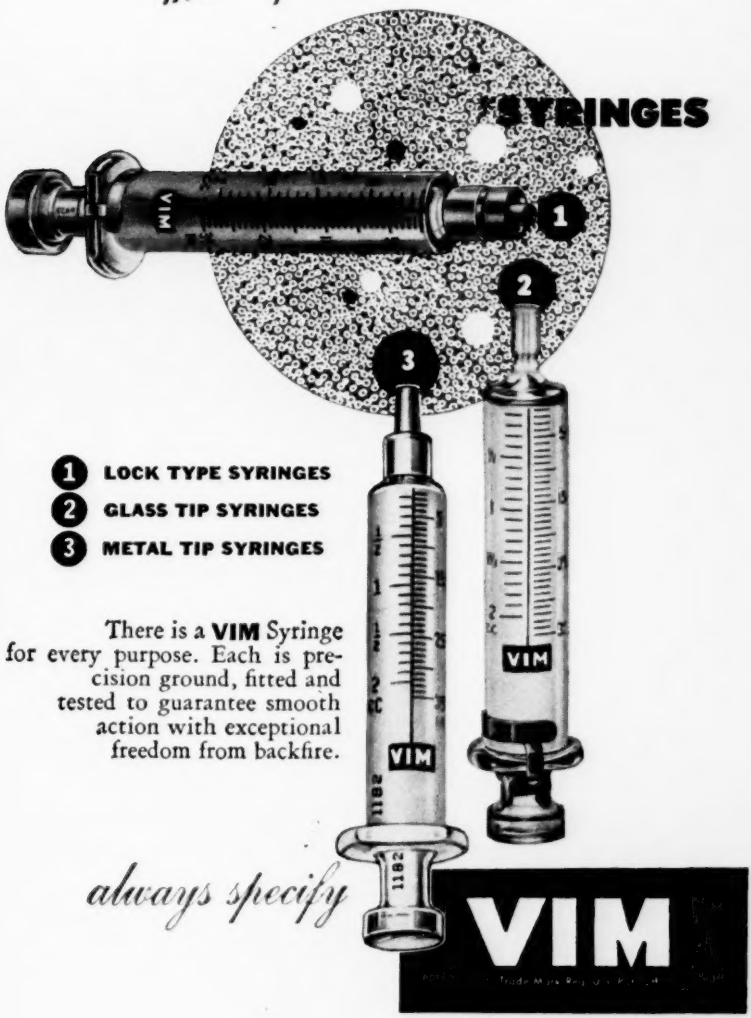
On this disturbing subject, "I could write a book." For the present, here are a very few of the mistakes which appear on almost every page of today's scientific, technical, and medical journals. It might not be a bad idea if the learned authors could learn to pretend that they are writing for a daily newspaper. The language of the morning paper may not be equal to that of the great masterpieces of English literature but undeniably it can be understood.

Both a good general dictionary and a medical dictionary should be standard equipment in the physician's office.

(Continued on page 54)



*made from resistance glass



1 LOCK TYPE SYRINGES
2 GLASS TIP SYRINGES
3 METAL TIP SYRINGES

There is a **VIM** Syringe for every purpose. Each is precision ground, fitted and tested to guarantee smooth action with exceptional freedom from backfire.

always specify **VIM**

MACGREGOR INSTRUMENT COMPANY
NEEDHAM 92, MASSACHUSETTS

Available through your surgical supply dealer



"Intermediate" Sedation in Nervous Exhaustion

"Symptomatic treatment of exhausted and nervous persons may be extremely helpful ... Sedatives are the most helpful drugs in treatment."[1]

BUTISOL SODIUM

BUTABARBITAL SODIUM, McNEIL

To control nervousness and anxiety during the day and promote relaxation and sleep at night, small doses of Butisol Sodium can be helpful in the anxiety-nervousness syndrome.

Classified as "particularly useful in the field of daytime sedation,"[2] Butisol Sodium is intermediate in action between the fast-acting derivative, pentobarbital, and the long-acting barbital and phenobarbital. . . . Sedation is sustained for approximately five to six hours.[3]



ELIXIR BUTISOL SODIUM
Its bright, green color and refreshing flavor appeal to all; an excellent prescription vehicle. Samples on request.

DOSAGE FORMS:
Each Butisol Sodium, 0.2 Gm. (3 gr.) per fl. oz., pints.
Tablets, 15 mg. (¼ gr.), lavender.
Tablets, 30 mg. (½ gr.), green.
Tablets, 50 mg. (¾ gr.), orange.
Tablets, 0.1 Gm. (1½ gr.), pink.
Capsules, 0.1 Gm. (1½ gr.), lavender.

1. Wilbur, D.W.: Clinical Management of the Patient with Fatigue and Nervousness, J.A.M.A. *141*:1199 (Dec. 24) 1949.
2. Dripps, R.D.: Selective Utilization of Barbiturates, J.A.M.A. *139*:150 (Jan. 15) 1949.
3. Council on Pharmacy & Chemistry: New and Non-official Remedies, 1951, Philadelphia, J.B. Lippincott Co., 1951, p. 208.

McNEIL

LABORATORIES, INC.

PHILADELPHIA 32, PA.

Ready to GO!



the DAILY LOG for 1953

The 1953 DAILY LOG for Physicians is off the press and ready for immediate delivery. This complete, one-volume financial record book assists in more efficient practice management—helps you avoid tax troubles—saves you time and money. Names of patients, services performed, amounts charged and cash received are all listed on dated Daily Pages. All expenses itemized for easy tax reference. All record forms designed specifically to the needs of your profession. No overlapping and multiple entries—no separate records in extra books. *Price: $7.25 for a complete calendar year. Satisfaction guaranteed.*



USE HANDY COUPON

COLWELL PUB. CO.
239 University Ave.,
CHAMPAIGN, ILL.

☐ Please send me the 1953 DAILY LOG for Physicians. Check for $7.25 enclosed.

☐ Send me FREE Colwell Catalog showing complete line of office record supplies.

Dr. .....

Address .....

.....

► Words or phrases often misspelled

curette, not currette
pruritus, not pruritis (false analogy from "-itis," indicating inflammation?)
fistula-in-ano, not fistula-in-anum (ablative case of a masculine noun, not the accusative: indicates a fistula situated in the anal region, not one leading into the anus. If in doubt, say "anal fistula.")
per primam, not per primum (the accusative singular of a feminine noun, "intentionem," is understood, the complete phrase being translated as "by first intention.")
persistent, not persistant
resistant, not resistent
sanguineous, not sanguinous

Fortunately, most publishers employ a good proofreader, or this list would be much longer.

► Words often used incorrectly

temperature=degree of heat; not to be used interchangeably with "fever," which means "elevated temperature."
specific=definite, characteristic, precise, having a direct curative action. The use of the word to designate a venereal disease is prudish.
theory=an explanation which is in accordance with all observed facts; not to be confused with "hypothesis," which is a provisional explanation, an unproved assumption.
malignancy=malice, virulence, quality of being evil-disposed: an abstract idea, wrongly used to denote a cancerous growth.
symptomatology=the study of the symptoms of disease (i.e. the subjective experiences of the patient): not the symptoms themselves.
pathology=the study of the microscopic and macroscopic changes produced by disease: not the tissue changes resulting from a particular disease.
serology=the branch of medicine that deals with serum and its reactions: not the reactions themselves.
pyrogenic=causing fever: not synonymous with "febrile."
summarily=briefly, epeditiously: not to be used where "in summary," "to sum up," or "summarizing" is meant.
i.e.="id est"=that is, or that is to say.
e.g.="exempli gratia"=for the sake of example, as an example.
obviated=prevented: not "avoided."

► Pairs of similar words often

it's the *healing* influence

of **cod liver oil**

that makes the great difference in

DESITIN®

hemorrhoidal

SUPPOSITORIES





the hemorrhoidal patient may sit, move and walk in greater comfort as Desitin Hemorrhoidal Suppositories with Cod Liver Oil act promptly to...

- **relieve pain and itching**
- **minimize bleeding**
- **reduce congestion**
- **guard against trauma**
- **promote healing** by virtue of their contents of high grade crude Norwegian cod liver oil, rich in vitamins A and D and unsaturated fatty acids (in proper ratio for maximum efficacy).

Prescribe Desitin Hemorrhoidal Suppositories in hemorrhoids (non-surgical), pruritus ani, uncomplicated cryptitis, papillitis, and proctitis.



Composition: crude Norwegian cod liver oil, lanolin, zinc oxide, bismuth subgallate, balsam peru, cocoa butter base. No narcotic or anesthetic drugs to mask rectal disease. Boxes of 12 foil-wrapped suppositories.

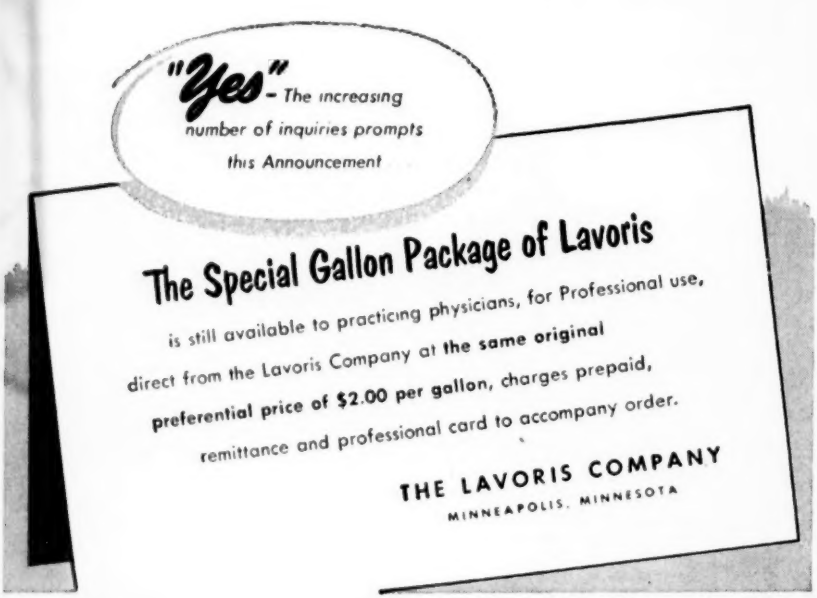
Send for **samples**

DESITIN CHEMICAL COMPANY ●
70 Ship Street • Providence 2, R. I.

wrongly used interchangeably, a favorite device of Mrs. Malaprop

to affect = to produce a change in, to influence.
to effect = to bring to pass, achieve, accomplish.
polyglot = using several languages.
polymorphous = having several forms.
(Neither can be used to describe a substance which has many components: complex, multiplex, or heterogeneous might best express this.)
principal = chief.
principle = a source, a fundamental truth.
adapted = adjusted, made suitable.
adopted = chosen and taken over as one's own.
allusion = reference, hint.
illusion = false appearance.
complement = that which supplies a deficiency.
compliment = expression of praise.
council = an assembly for consultation.
counsel = advice, interchange of opinions: one who gives advice in legal matters.
debility = weakness.
debilitation = the process of becoming weak.
definite = precise.
definitive = final, unconditional.
it's = it is.
its = possessive case of "it."
remedial = designed to remedy.
remediable = capable of being remedied.
hypothecate = to pledge or mortgage.
hypothesize = to assume something for the purpose of argument.
suppurative = promoting the formation of pus; e.g., a suppurative infection.
suppurating = in the process of forming pus; e.g., a suppurating wound.
trophic = nourishing, developing.
tropic = turning or going toward: guiding, directing.
suggestive = containing a hint or suggestion.
suspicious = inclined to suspect or mistrust.
nauseous = causing a feeling of sickness.
nauseated = having a feeling of sickness.

I. JOCELYN PATTON, M.D.
Pearl River, N. Y.





Creating the right attitude..

optimism and cooperation are encouraged by

'Methedrine'®

BRAND

Methamphetamine Hydrochloride, COMPRESSED

Subtle improvement in mood and outlook follows oral administration of small doses of 'Methedrine'. This helps carry depressed patients through their troubles, toward normal adjustment.

For those whose troubles stem from eating too much, 'Methedrine' makes all the difference between continual self-denial with consequent irritability, and easy acceptance of a reducing diet; it dispels excessive desire for food.

Literature will be sent on request

'Methedrine' brand Methamphetamine Hydrochloride, 5 mg., Compressed, scored

Bottles of 100 and 1,000

Burroughs Wellcome & Co. (U.S.A.) Inc., *Tuckahoe 7, New York*

...the best is yet to be



For those approaching middle life, the years ahead *can* be the best — provided normal metabolic functions are safeguarded. In such interrelated disorders as atherosclerosis, diabetes mellitus, and liver disease, the clinical findings are likely to include abnormal fat metabolism (with accompanying deposition of cholesterol) and abnormal capillary fragility.

Prophylaxis against these threats to the older patient may be established and maintained with VASCUTUM.

schenley

VASCUTUM

Trademark

for the life that begins at forty

VASCUTUM* presents an unusually complete lipotropic combination *plus* the specific capillary protectants, rutin and ascorbic acid.

The average daily dose (6 tablets) provides:			
Choline	1 Gm.	Pyridoxine HCl	4 mg.
Inositol	1 Gm.	Rutin	150 mg.
dl-Methionine	500 mg.	Ascorbic Acid	75 mg.
SUPPLIED: Bottles containing 100 tablets			

SCHENLEY LABORATORIES, INC.
LAWRENCEBURG • INDIANA

© Schenley Laboratories, Inc.

*Trademark of Schenley Laboratories, Inc.



NO BORIC ACID!

Diaparene® CHLORIDE

(METHYL BENZETHONIUM CHLORIDE)

BACTERICIDAL • WATER-MISCIBLE • SAFE[2,3]

The ever-present possibility of boric acid poisoning by transcutaneous absorption, when the skin is broken, indicates the physician's and nurse's need of making sure to recommend to every mother a "diaper rash" dusting powder and ointment containing *no boric acid.*

1. Fisher, R. S. "Notes from The Office of the Chief Medical Examiner," Baltimore, Md., April, 1951.
2. Benson, R. A., et al.: "The Treatment of Ammonia Dermatitis with Diaparene," J. Ped. 34:1-49, Jan., 1949.
3. Niedelman, M. L., et al.: "Ammonia Dermatitis: Treatment with Diaparene Chloride Ointment," J. Ped. 37:5-762, Nov., 1950.



PHARMACEUTICAL DIVISION, HOMEMAKERS' PRODUCTS CORPORATION, NEW YORK 10

Rapid Relief

FOR MUSCULO-SKELETAL ACHES AND PAINS



RUB A-535

ARTHRITIS •
RHEUMATISM •
BURSITIS •
MYOSITIS •
NEURITIS •
SCIATICA •
LUMBAGO •

Rub A-535's combination of time-proven ingredients, in a modern non-greasy, stainless, vanishing base facilitates rapid analgesic and counter-irritant action in the symptomatic treatment of a wide range of musculo-skeletal conditions.

Rub A-535 contains four active ingredients: Camphor 1%, Menthol 1%, Oil Eucalyptus ½%, Methyl Salicylate 12%.

Rub A-535 may be used following diathermy, infra-red lamps, baking and other forms of physio-therapy.



For a Professional Sample of Rub A-535, Write Dept. B-210

THE DENVER CHEMICAL MFG. CO., Inc.
163 Varick Street, New York 13, N. Y.

when healing lags...



Chloresium®

brand of water-soluble chlorophyll derivatives

ointment · solution (plain)

In ulcers, wounds, burns and dermatoses,
CHLORESIUM OINTMENT and SOLUTION (Plain)
promote normal tissue repair, relieve itching
and irritation, and deodorize malodorous lesions.

Rystan company inc.

Mount Vernon, New York

Questions & Answers

All questions received will be answered by letter directed to the petitioner; questions chosen for publication will appear with the physician's name deleted. Address all inquiries to the Editorial Department, MODERN MEDICINE, *84 South Tenth Street, Minneapolis 3, Minnesota.*

QUESTION: What treatment would you suggest for a patient who has been bothered by itching of the ear canals for twenty years? A dry scaliness exists just inside the canal, but no weeping. He apparently has a fungous type of infection. I have used many ointments but with no effect.

M.D., North Carolina

ANSWER: *By Consultant in Otolaryngology.* Many adults, particularly those over 50 years of age, are bothered with some scaling of the epidermis lining the external auditory canal. This is often associated with an absence of wax. Hydrous lanolin or a little olive oil has been used with good results. Such itching can result from a fungous infection, but usually then is accompanied by discharge. Diagnosis of fungous infection may be made by inspection and a study of the secretion.

QUESTION: I have a patient who has a *Strongyloides stercoralis* infestation of the intestinal tract. I have given him tetrachloroethylene and a three weeks' course of gentian violet, 1 gr. three times a day. However, some parasites remain in the stools. Can you suggest further treatment?

M.D., Ohio

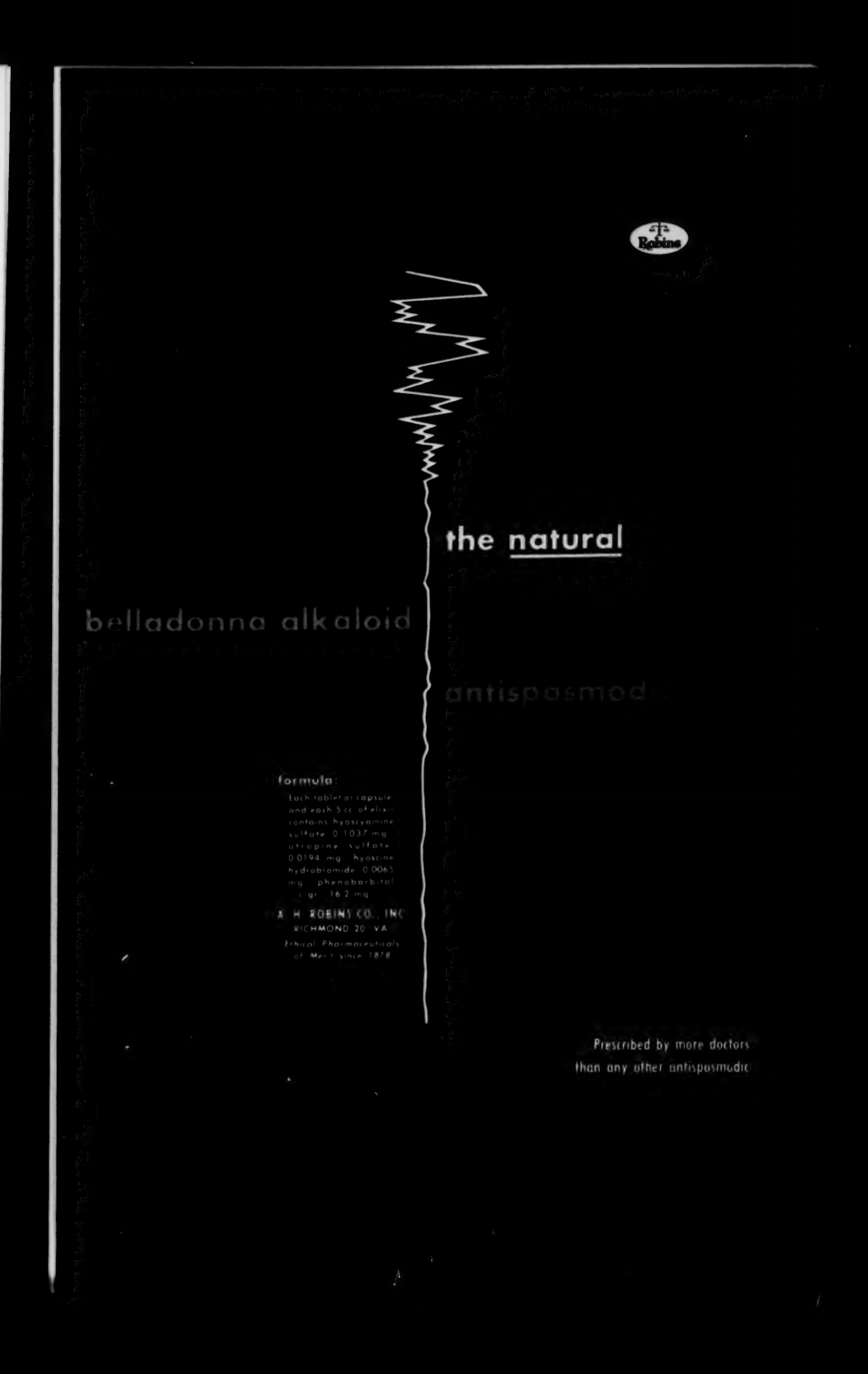
ANSWER: *By Consultant in Parasitology.* No specific treatment for *Strongyloides* infection has yet been devised.

An hour or two hours before meals, medicinal gentian violet (½-gr. enteric-coated tablets) is given three times a day. The dose is increased 1 tablet each day until 5 are taken. Sometimes, because of persistent nausea and vomiting, patients are unable to complete the fifth day of treatment. Many times, however, the amount of the drug tolerated is sufficient to eradicate the infection.

QUESTION: A lower- to mid-third oblique tibia fracture was reduced without plate or wiring. The usual one-layer batting and 4-in. plaster of Paris roll was used for the tight-fitting cast. Is this method of treatment satisfactory? Is the Küntscher medullary nail advisable if other means of stabilization of the fracture exist?

M.D., Indiana

ANSWER: *By Consultant in Orthopedics.* This method of treating fractures of the lower third of the tibia and fibula is accepted by all persons doing fracture surgery. In this case, the injury must not have been extremely severe to the soft tissues nor to the leg as a whole. Although the tibia was fractured obliquely, the fibula apparently was


A. H. Robins
the natural
belladonna alkaloid
antispasmod
formula:
Each tablet or capsule and each 5 cc. of elixir contains hyoscyamine sulfate 0.1037 mg. atropine sulfate 0.0194 mg. hyoscine hydrobromide 0.0065 mg. phenobarbital 1/4 gr. 16.2 mg.
A. H. ROBINS CO., INC.
RICHMOND 20, VA.
Ethical Pharmaceuticals of Merit since 1878
Prescribed by more doctors than any other antispasmodic

Questions & Answers

All questions received will be answered by letter directed to the petitioner; questions chosen for publication will appear with the physician's name deleted. Address all inquiries to the Editorial Department, MODERN MEDICINE, *84 South Tenth Street, Minneapolis 3, Minnesota.*

QUESTION: What treatment would you suggest for a patient who has been bothered by itching of the ear canals for twenty years? A dry scaliness exists just inside the canal, but no weeping. He apparently has a fungous type of infection. I have used many ointments but with no effect.

M.D., North Carolina

ANSWER: *By Consultant in Otolaryngology.* Many adults, particularly those over 50 years of age, are bothered with some scaling of the epidermis lining the external auditory canal. This is often associated with an absence of wax. Hydrous lanolin or a little olive oil has been used with good results. Such itching can result from a fungous infection, but usually then is accompanied by discharge. Diagnosis of fungous infection may be made by inspection and a study of the secretion.

QUESTION: I have a patient who has a *Strongyloides stercoralis* infestation of the intestinal tract. I have given him tetrachloroethylene and a three weeks' course of gentian violet, 1 gr. three times a day. However, some parasites remain in the stools. Can you suggest further treatment?

M.D., Ohio

ANSWER: *By Consultant in Parasitology.* No specific treatment for *Strongyloides* infection has yet been devised.

An hour or two hours before meals, medicinal gentian violet (½-gr. enteric-coated tablets) is given three times a day. The dose is increased 1 tablet each day until 5 are taken. Sometimes, because of persistent nausea and vomiting, patients are unable to complete the fifth day of treatment. Many times, however, the amount of the drug tolerated is sufficient to eradicate the infection.

QUESTION: A lower- to mid-third oblique tibia fracture was reduced without plate or wiring. The usual one-layer batting and 4-in. plaster of Paris roll was used for the tight-fitting cast. Is this method of treatment satisfactory? Is the Küntscher medullary nail advisable if other means of stabilization of the fracture exist?

M.D., Indiana

ANSWER: *By Consultant in Orthopedics.* This method of treating fractures of the lower third of the tibia and fibula is accepted by all persons doing fracture surgery. In this case, the injury must not have been extremely severe to the soft tissues nor to the leg as a whole. Although the tibia was fractured obliquely, the fibula apparently was



the natural

belladonna alkaloid

antispasmodic

formula:

Each tablet or capsule and each 5 cc of elixir contains hyoscyamine sulfate 0.1037 mg., atropine sulfate 0.0194 mg., hyoscine hydrobromide 0.0065 mg., phenobarbital gr. 1/96 (0.2 mg.)

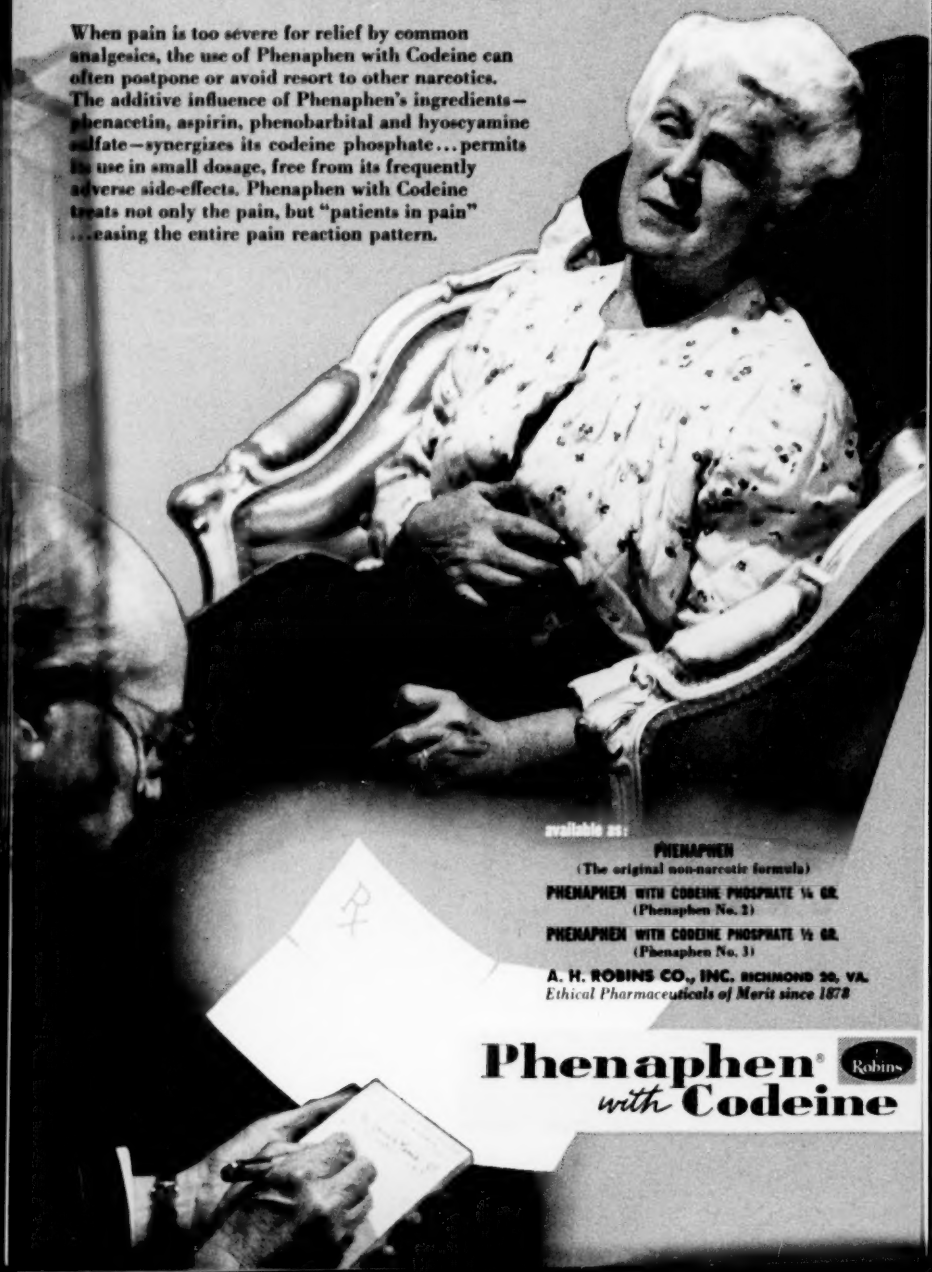
A. H. ROBINS CO., INC.
RICHMOND 20, VA.

Ethical Pharmaceuticals of Merit since 1878

Prescribed by more doctors than any other antispasmodic

for **full** *codeine analgesia*
on **small** *codeine dosage . . .*

When pain is too severe for relief by common analgesics, the use of Phenaphen with Codeine can often postpone or avoid resort to other narcotics. The additive influence of Phenaphen's ingredients—phenacetin, aspirin, phenobarbital and hyoscyamine sulfate—synergizes its codeine phosphate . . . permits its use in small dosage, free from its frequently adverse side-effects. Phenaphen with Codeine treats not only the pain, but "patients in pain" . . . easing the entire pain reaction pattern.



available as:

PHENAPHEN
(The original non-narcotic formula)

PHENAPHEN WITH CODEINE PHOSPHATE ¼ GR.
(Phenaphen No. 2)

PHENAPHEN WITH CODEINE PHOSPHATE ½ GR.
(Phenaphen No. 3)

A. H. ROBINS CO., INC. RICHMOND 20, VA.
Ethical Pharmaceuticals of Merit since 1878

Phenaphen® Robins
with **Codeine**

not fractured. Therefore, after reduction on the traction-countertraction table, the surgeon was able to place a tight-fitting cast, which prevented movement of the reduced fragments.

A little more padding of lightweight felt should be put over the internal and external malleoli, the posterior portion of the calcaneum, and about the toes. The upper end of the cast should be encircled with thin felt so that rough edges will not cause pressure. Usually the cast is split from one end to the other on the dorsal surface so that the leg can expand without injury if untoward circulatory changes cause swelling.

Medullary nails should be used only when the fracture cannot be reduced by conservative methods and internal fixation is necessary. Medullary nails are just one form of internal fixation and are ideal in some fractures, but the surgeon must have the proper equipment and experience to carry out this technic.

QUESTION: Do you advise antibiotic chemotherapy in noncompound fractures?

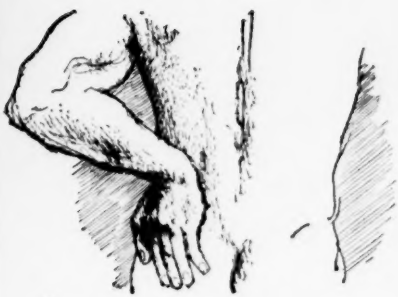
M.D., Illinois

ANSWER: *By Consultant in Orthopedics.* Antibiotic chemotherapy should never be used except for infections or when infection is considered likely.

IN LOW BACK PAIN
and other rheumatic diseases

Dioloxol®
COUNCIL-ACCEPTED BRAND OF MEPHENESIN

has frequently induced demonstrable relief



"Mephenesin offers a new approach to this problem."
HERMANN, I. F. and SMITH, R. T.: The Journal Lancet 71:271, 1951

Dioloxol is metabolized rapidly ... specially-prepared, fast-disintegrating tablets makes the Dioloxol available for absorption almost immediately.

TABLETS: 0.5 Gm./ELIXIR: 0.1 Gm. per cc.

Comprehensive literature and complimentary supply available

G. W. Carnrick Co.
BOX 9098, NORTH STATION, NEWARK 4, NEW JERSEY



NOW *Microtherm* wherever diathermy is indicated...

RAYTHEON Radar *Microtherm* offers you the modern microwave method of precision heat application.

MICROTHERM operates at 2450 megacycles, as contrasted with the highest television range of 920 megacycles, *hence TV interference is avoided.*

MICROTHERM provides penetrating energy for deep heating — dosage may be accurately timed.

MICROTHERM is safe as well as quick, easy to apply as well as clinically efficient.

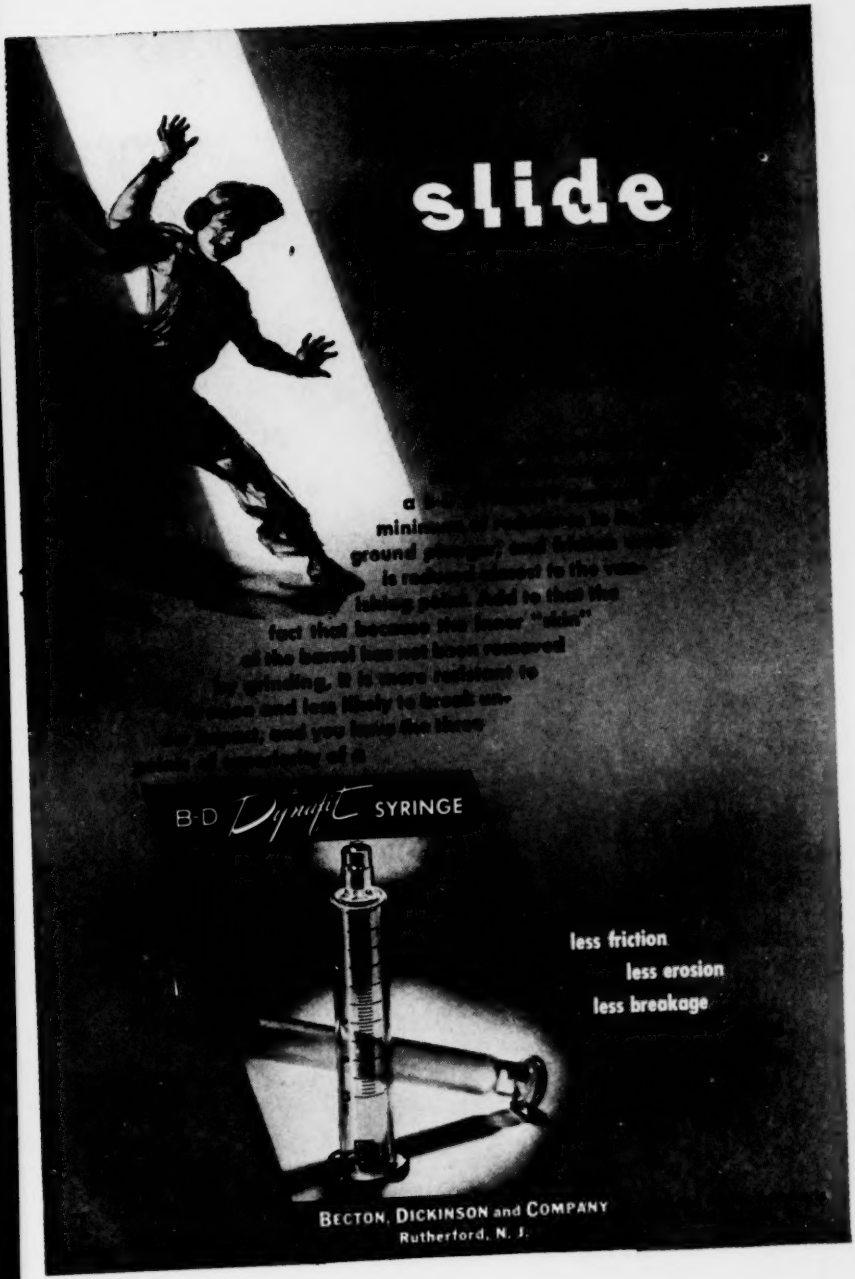
Ask your dealer for a demonstration or let us mail you the latest clinical reports on Radar Microwave Diathermy.

APPROVED BY THE F. C. C.
CERTIFICATE NO. D-477
UNDERWRITERS LABORATORY

TAKE THE TIME to investigate the diathermy equipment used in leading clinics, hospitals and doctors' offices — *over twelve thousand Microtherms now in use.*

RAYTHEON MANUFACTURING COMPANY
Power Tube Division • Waltham 54, Mass.

RAYTHEON®
Excellence in Electronics


slide
B-D Dynaflex SYRINGE
less friction
less erosion
less breakage
BECTON, DICKINSON and COMPANY
Rutherford, N. J.

Forensic Medicine

ARTHUR L. H. STREET, LL.B.

Prepared especially for Modern Medicine

PROBLEM: In a prosecution for fatal abortion, was it a legal defense that the woman may have previously attempted to abort herself?

COURT'S ANSWER: No.

The case was so decided by the California District Court of Appeal, Second District, Division 2, in affirming a conviction (245 Pac. 2d 526).

PROBLEM: The plaintiff, a physician, was called into consultation by a family doctor, reasonably supposing that this was done for the benefit of the patient and that the patient would pay the bill. Could the patient defeat a suit on the ground that, allegedly, the family doctor wanted the plaintiff brought into consultation for his benefit and had promised that he would pay the consultation fee?

COURT'S ANSWER: No.

The Iowa Supreme Court decided (1874) that, because not informed to the contrary, the plaintiff had a right to assume that the consultation was for the benefit of the patient and that the latter would pay the reasonable value of the service (40 Ia. 84).

PROBLEM: An employee's left patella was fractured and was unsuccessfully operated upon six or seven months later. Was his right to a workmen's compensation award affected because he rejected advice of 3 physicians that he submit to another operation, there being no assurance that the operation would succeed or give him a stout knee?

COURT'S ANSWER: No.

The Kentucky Court of Appeals said that it was immaterial that the operation might not be dangerous. The court mentioned the fact that the patient was of very nervous disposition (249 S. W. 2d 725).

PROBLEM: In both England and the United States, it long has been well-established law that a doctor's right to compensation for his services need not rest upon an *explicit* promise by the debtor to pay—that a promise to pay may be *implied* from a request that the services be rendered. In which country did this rule of law originate?

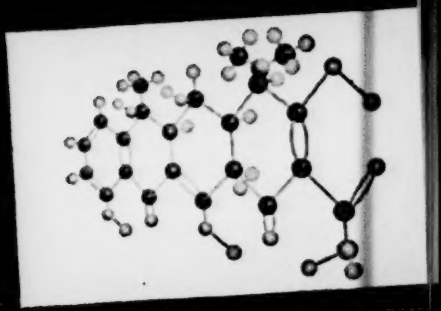
ANSWER: In the United States.

In England, prior to adoption of the Medical Act in 1858, the general rule was that a physician, as distinguished from a surgeon, was entitled only to such honorarium as the patient might bestow, unless there was an express promise to pay.

In this country the rule has never been recognized. This is shown by a decision rendered by the Indiana Supreme Court in 1833 (3 Blackford's Reports 269). Dr. McNamee sued one Judah for $269.43, "for work, labour, care, and diligence . . . bestowed" as "doctor of physic,

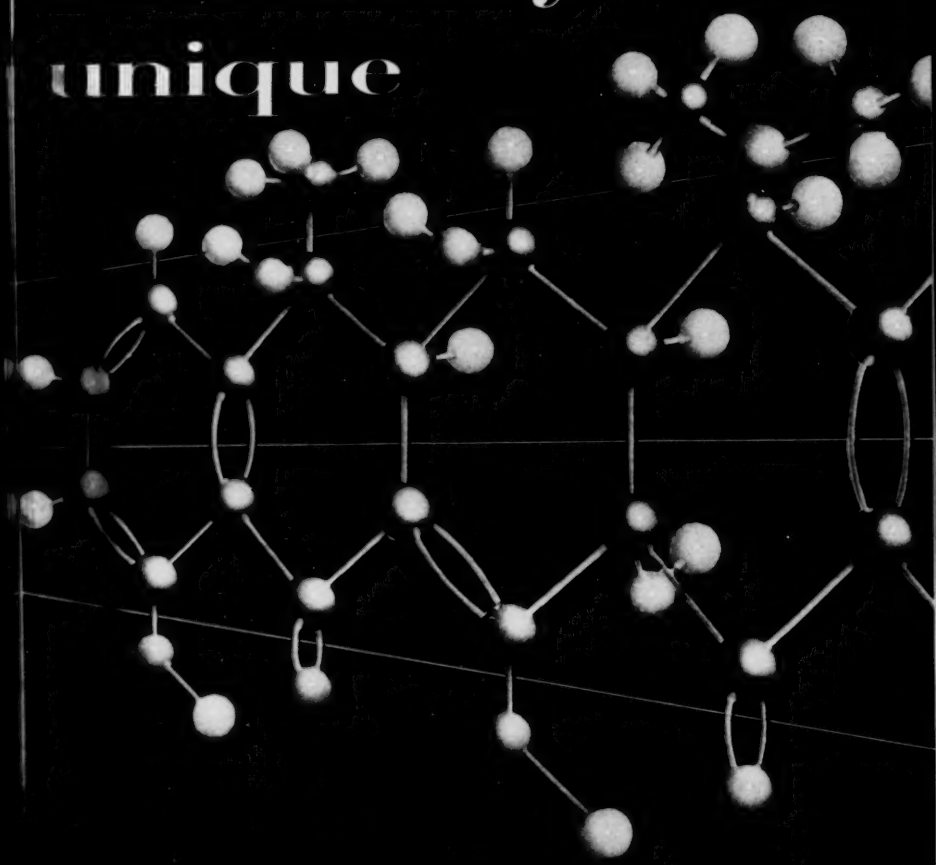
(Continued on page 52)

there's a



difference...

chemically
unique



Pfizer

clinically unexcelled

Terramycin

for TOLERATION

EFFECTIVENESS

PURITY

POTENCY

ANTIBIOTIC DIVISION, CHAS. PFIZER & CO., INC., BROOKLYN 6, N. Y.

orld's largest producer of antibiotics

DON'T MISS 

APPEARING REGULARLY IN THE J. A. M. A.

in visiting and prescribing physic," and so forth. But to guard against the possibility of being nonsuited on the ground that a *doctor* could not collect without having gotten a promise to pay, there was an alternative demand for the same sum, in the doctor's capacity as an *apothecary*, covering the same services "in healing and curing Judah and his family of divers wounds, sores, diseases, and maladies."

In upholding Dr. McNamee's right to collect as a physician, the Indiana court reasoned: The states adopted only so much of English common law as was consistent with our laws. As early as 1789, the Massachusetts Supreme Judicial Court had decided that a physician could force payment of fees on a theory of implied contract. The Pennsylvania Supreme Court followed suit in 1819 (5 Serg. & Rawle Rep. 416).

Two years after the Massachusetts decision, an English court, after warm debate, denied the right of a physician to collect upon the theory of implied obligation, in an opinion rendered by Lord Justice Kenyon. He declared that it had been understood that "the fees of a physician were honourable and not demandable of right; that it was much more for the credit and rank of that honourable body that it should be so understood." The justice seemed to doubt that doctors would be willing to claim a

Now at your service...



QUICK ACTING
POTENT
HIGHLY STABLE
WELL TOLERATED

XYLOCAINE®
(Pronounced Xi lō' cain)
HYDROCHLORIDE
ASTRA
(Brand of lidocaine hydrochloride*)
AN AQUEOUS SOLUTION

Dispensed in 50 cc and 20 cc multiple-dose vials containing 0.5%, 1% or 2% solution. All solutions available without epinephrine and with epinephrine 1:100,000. 2% solution also supplied with epinephrine 1:50,000.

STOCKED BY LEADING WHOLESALE DRUGGISTS AND SURGICAL SUPPLY HOUSES.

a NEW local anesthetic

A potent, short-acting local anesthetic, producing on injection, a more prompt, intense and extensive anesthesia than equal concentrations of procaine hydrochloride. Useful and effective either with or without epinephrine, it has been described (1) as the most promising of the new local anesthetics, approaching in efficiency the nerve blocking properties of piperocaine, and in toxicity, the advantages of safety presented by procaine.

(1) Hanson, I. R. and Hingson, R. A., *Current Researches in Anesthesia and Analgesia*, 29:136 (May-June) 1950.

ASTRA PHARMACEUTICAL PRODUCTS, INC. WORCESTER, MASS. U.S.A.

*U.S. Patent No. 2,441,498

ALZINOX

[Brand of Dihydroxy Aluminum Aminoacetate]

AN **A**NTACID WITH PROMPT
AND PRO**L**ONGED EFFECTIVENESS,
RECOGNI**Z**ING THE NEED FOR
FLEX**I**BLE BUFFER ACTION,
LOW ALUMI**N**UM CONTENT,
FREED**O**M FROM ACID REBOUND,
AND E**X**CEPTIONAL PATIENT-APPEAL

ALZINOX offers swift relief of pain in hyperacidity and uncomplicated cases of peptic ulcers.

ALZINOX Tablets and **ALZINOX** Magma are both highly acceptable to patients. The tablets are small enough, and disintegrate rapidly enough in the stomach, to be swallowed without chewing.



ALZINOX Tablets--0.5 Gm. (7½ gr.), bottles of 100 and 500

ALZINOX Magma--0.5 Gm. (7½ gr.) per 5 cc.; bottles of 8 fl.oz.

For extra sedation and spasmolysis:

Tablets **ALZINOX** with Phenobarbital (¼ gr.) and Homatropine Methyl Bromide (1/100 gr.), bottles of 100 and 500

Magma **ALZINOX** with Phenobarbital (⅛ gr. per 5 cc.) and Homatropine Methyl Bromide (1/100 gr. per 5 cc.); bottles of 8 fl.oz.

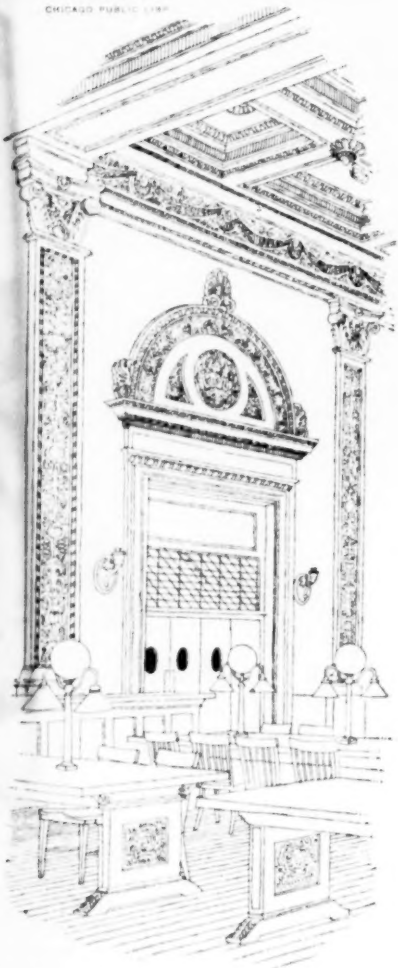
THE
E. L. PATCH COMPANY
STONEHAM • MASSACHUSETTS

New aureomycin minimal dosage for adults—four 250 mg. capsules daily, with milk.

From among all antibiotics, Ophthalmologists often choose

AUREOMYCIN

Hydrochloride Crystalline



because

Aureomycin penetrates the ocular tissues and fluids, after passing the blood-aqueous barrier.

Aureomycin in 0.5% solution is well tolerated by the conjunctiva.

Aureomycin may be used locally in appropriate solution; or by mouth; or, in emergency, intravenously; or by a combined approach, depending upon the seriousness of the infection.

Aureomycin has proved of value in a number of ocular infections in which other remedies have failed.

Aureomycin has been reported to be effective against susceptible organisms in the following conditions commonly seen by ophthalmologists:

Blepharitis
Conjunctivitis
Dendritic Keratitis
Epidemic Keratoconjunctivitis
Episcleritis
Periorbital Infection
Acute Trachoma
Uveitis

Throughout the world, as in the United States, aureomycin is recognized as a broad-spectrum antibiotic of established effectiveness.

Capsules: 50 mg.—Bottles of 25 and 100.
250 mg.—Bottles of 16 and 100.
Ophthalmic: Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.

LEDERLE LABORATORIES DIVISION AMERICAN Cyanamid COMPANY
30 Rockefeller Plaza, New York 20, N. Y.

right to compensation that would reduce them to the social plane of *common men*, declared the Indiana court. In this connection, it is noted that a chief justice of England said, in an old case in which an apothecary, having posed as a physician, sued for fees: "If a person passes himself off as a physician, he must take the character *cum onere*. When he brings an action for visits paid by him as a physician, I will give him credit for being so, and tell him that he must trust to the honour of his patients."

PROBLEM: Husband and wife, injured in a railroad wreck, were hospitalized for more than six weeks. Five weeks after the accident, they settled with the railroad claim agent on the faith of assurance by the railroad's doctors, who had treated them, that their injuries were healing satisfactorily. The assurance was given after the doctors examined roentgenograms. The wife's left clavicle had been broken and a roentgenogram showed that there was no union. Later an operation was required; full use of the arm had not been regained when suit to set aside the release was brought. Allegedly, the husband was not told of a fractured humerus he sustained, and he was assured that he was perfectly healed. At the trial the husband complained of pains in the right arm and lost movement of fingers, incapacitating him for work. If this testimony was believed, were the patients entitled to cancellation of the release?

COURT'S ANSWER: Yes.

The U. S. Court of Appeals said that if the claim agent believed the doctors' statements, the release was cancelable on the ground of mutual mistake; if he knew that the patients' conditions were not as assured by the doctors, the release was cancelable on the ground of fraud (196 Fed. 2d 50).

IN

INSOMNIA

Due to emotional upsets . . .
anxiety states



Prescribe

PASADYNE

(DANIEL)

A therapeutically reliable calmative, peculiarly fitted to this type of nervous disorder. Induces restful sleep without penalty. Non-barbiturate non-habit-forming.

Pasadyne is a synergistic combination of the natural plant drugs Hyoscyamus and Passiflora Incarnata.

Write for clinical samples and descriptive literature.

JOHN B. DANIEL, INC.
ATLANTA, GEORGIA



FACTS ABOUT *Synthetic*

In only four years synthetic detergents have made a tremendous change in the household washing habits of American housewives. At the start of 1948 they accounted for less than 10% of the "laundry soap" business; by the end of 1951 they accounted for over 60%. The product enjoying the greatest popularity in this classification (Tide) is currently being used by one woman out of every four who do their own dishes, and one out of every three who do their own laundry.

For your information the Chemical Division of The Procter & Gamble Company has prepared this article, discussing some of the differences between synthetics and soaps which formerly were widely used.

How synthetic detergents differ from soaps

Synthetic detergents are organic compounds with molecules whose opposite ends are highly polarized like those of soap: one end consists of the type of structure which is oil soluble, the other consists of the type which is water soluble.

Magnesium and calcium soaps formed by interaction of sodium soaps with water hardness are among the most insoluble of compounds. The precipitation which occurs with soap in hard water wastes soap and causes cloudy glassware and unsightly deposits. The "tailor-made" molecules of synthetics do not form these insoluble compounds in hard water. They leave surfaces cleaner . . . free of any precipitated "soap film" formed during rinsing. Also, unlike soaps, in solution, synthetics can be used at almost any pH. Soaps must be kept at pH 10 or above, or they will split into fatty acids. Most synthetic products in general use have solution pHs from 6.0–10.0. Few are above the pH of soap.

The special washing abilities of synthetic detergents

As a consequence of the above characteristics, synthetics are particularly well-suited for washing off acidic soils which would destroy soap. Since they aren't destroyed by hardness or by salts of other metals as soaps are, they are well-suited to washing a great variety of things which could be washed only with alkalis before.

The effect of synthetic detergents on bacteria

The synthetics in general use have about the same effect on bacteria as soaps—that is, some germicidal effect on some strains, but for creating relatively sterile conditions they rely more on removing bacteria than on killing them.

Detergents

The effect of synthetic detergents on skin

Over the past seven years, Procter & Gamble has included synthetic detergents in the continuing series of tests to measure the effect of washing products on skin. In addition to the routine patch and arm-immersion tests, Procter & Gamble has conducted, under careful medical supervision, extensive clinical and home-usage tests of all its products, including the new synthetics. These tests indicate that household detergents in use today, as a class, do not differ greatly in their effect on the skin from the general-purpose package soaps which have been used for years. Some have a lower pH than soaps and, hence, less effect on persons sensitive to alkali.

Like soaps, the detergents generally are mild primary irritants, but a fact not generally realized is that on the average person subjected to patch or immersion tests, most detergent solutions cause less skin reaction than do soap solutions.

Women have had many years in which to learn whether or not all soaps or certain soaps prove irritating. Problems arising from the effect of soap on skin have, therefore, been spread over decades. In the case of washday detergents, almost every woman in America was exposed to these products in a concentrated period of two or three years.

This widespread use of synthetics, together with their relative newness on the market, have resulted in a situation where synthetics are likely to be suspected as the cause of many cases of dermatitis where they probably are not involved. With almost all housewives now using synthetics for one or more purposes in their homes, it is inevitable that when a physician sees a case of hand dermatitis, a history of exposure to detergents will be obtainable. The significance of the dermatitis must be appraised against the background of the wide use of the detergent products.

FOR FURTHER INFORMATION, send for free booklet, "About Synthetic Detergents — Facts for Physicians." Write: The Procter & Gamble Co., Box 687F, Cincinnati 2, Ohio.





TIDE...

THE SYNTHETIC DETERGENT THAT OUTSELLS ANY OTHER WASHING PRODUCT BY **3** TO **1**!

only

only *gentia-jel* offers gentian violet in this new plastic single-dose disposable applicator for the daintiest, easiest way to apply this specific in **pregnancy moniliasis.**

only *gentia-jel* offers gentian violet in a special wetting, acidifying, water-soluble base (polyethylene glycol) which permits intimate contact of this antimycotic with *Candida albicans* organisms... killing them quickly. Clinical record in pregnancy moniliasis: 93% combined cure and improvement, "noteworthy" relief from itch, burning, etc.[1] Safe to use until onset of labor.

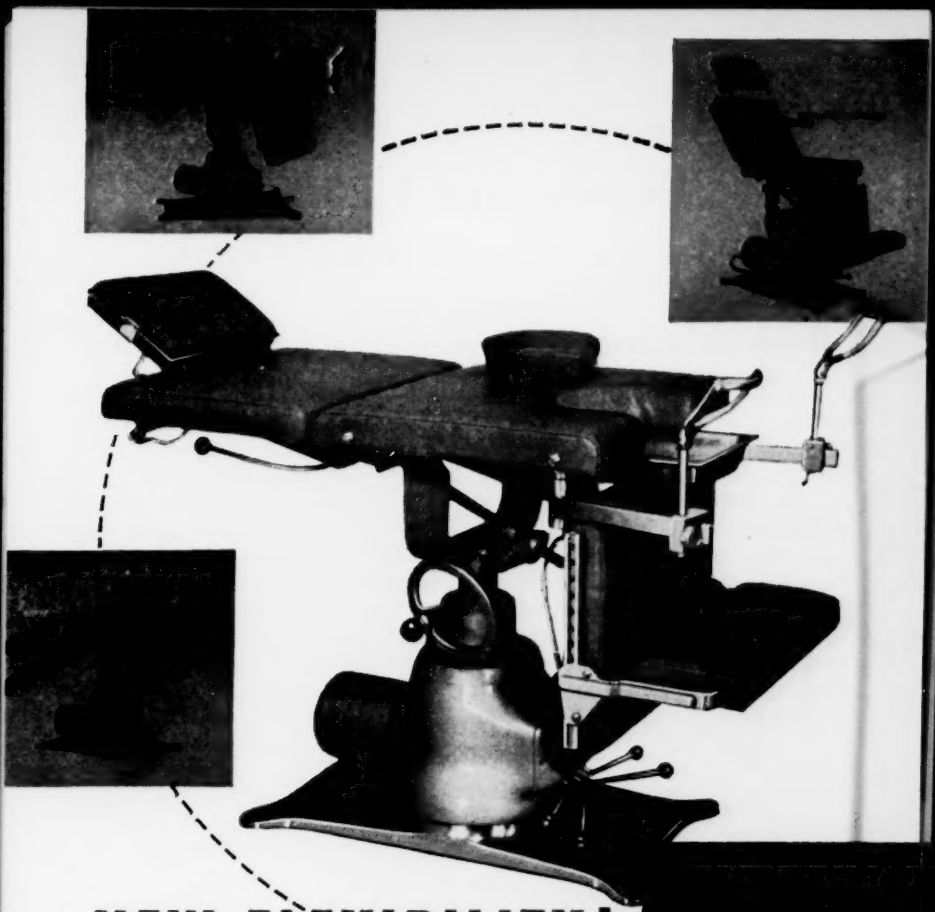
only *gentia-jel* offers gentian violet therapy which can be used daily by the patient and doctor...without messiness and with minimal staining. Economical, too.



samples for office or patient use from...

Westwood Pharmaceuticals
division of Foster-Milburn Co., Dept. MM
468 Dewitt St., Buffalo 13, N. Y.

1. Waters, E. G., and Wager, H. P.: Amer. J. Obstet. & Gyn. 60:885, 1950.



NEW FLEXIBILITY!

The finest table ever designed to meet the varying needs of the general practitioner. The Ritter Universal Table requires a minimum of effort to adjust to any position. All types of patients are easily and quickly adjusted to a convenient examining position. *Motor-driven hydraulically operated base operates silently, rapidly, smoothly. A touch of the toe on the operating lever is all that is required for low position of 26½"—high position 44½". Equipped with adjustable headrest, perineal cut-out, stainless steel irrigation pan, adjustable knee rest, stirrups, and hand wheel operated tilt mechanism. Ask your Ritter dealer for a demonstration now.*

RITTER UNIVERSAL TABLE

MODEL "B"

TYPE 2

FOR ADVANCED EQUIPMENT LOOK TO

Ritter

COMPANY INCORPORATED

RITTER PARK, ROCHESTER 3, N. Y.

Washington LETTER

Geneva Conventions Important to U. S. Physicians

AMONG the international issues which may go before the 83rd Congress when it convenes January 3, are three conventions passed by the International Labor Organization at its 35th session in Geneva this summer and a supplemental appropriation for the United Nations International Children's Emergency Fund. Two of the ILO conventions are of direct concern to the medical profession—both of them calling for national compulsory health insurance—while the third deals with vacations for agricultural workers. The first two conventions—on social security and maternity protection—call for medical care through compulsory health insurance or some government-sponsored alternative.

Although government sources have privately admitted they don't think either of the two medically hot ILO conventions will pass the next session of Congress, there is no time limit set for them and they could be considered at some future session.



"Junior said his first word today, dear—arteriosclerosis."

In the case of the social security convention, medical care would be provided by the national compulsory health insurance that would cover approximately 50% of the population or through either of two alternatives: [1] private, voluntary insurance "administered by public authorities under established regulations," or [2] pri-

For your pneumonia patients —

a more soluble, single sulfonamide with a wider antibacterial spectrum. No need for alkalies — no record of renal blocking...

GANTRISIN® 'ROCHE'

From the literature —

"Gantrisin is a sulfonamide which has a high solubility over a wide pH range. This is a valuable consideration because it is less toxic and does not form concretions as do other sulfonamides."

Postgrad. Med.,
8:312, 1950

vate policies administered by insurance companies under government "supervision." Employer representatives of the United States termed this proposal "socialized medicine" and contended that the entire nine-point convention could be opposed because of this one provision.

Minimum standards are set by the convention in the fields of medical care, sickness benefits, family benefits, maternity benefits, invalidity benefits, injury benefits, unemployment benefits, old-age benefits, and survivors benefits. Countries adopting the convention must put four of the nine provisions into effect. The U. S. delegates lost their fight to get the conference to require that only one of the provisions be in effect for adoption and that the entire proposal be submitted as a resolution instead of a binding convention. The ILO convention is, in effect, an international treaty, requiring a two-thirds vote of the U. S. Senate in order to take effect in the United States. Of course, in adopting the convention, the United States could put four provisions into effect without even considering the controversial medical care section.

There is some question as to whether the maternity convention will require Senate approval, however. The State Department has not decided whether the material covered in the convention is a federal or state matter. If it is ruled a federal question, Senate approval is required; if it is considered a state problem, it will be up to the individual states to pass legislation implementing the convention. United States employer representatives objected to this convention as they did to the one on social security. Unlike the social security convention, the maternity convention must be accepted in full. Accompanying the convention is a recommendation which more explicitly defines the rights outlined.

According to the convention, maternity protection would be required to provide cash and medical benefits through compulsory social insurance or public funds "as a matter of right to all women who comply with the prescribed conditions." It covers women workers in industry, agriculture, and domestic service. Among the provisions: [a] maternity leave of at least twelve weeks, including six weeks compulsory leave after confinement, [b] additional leave before confinement upon recommendation of a medical practitioner or midwife, [c] cash benefits "sufficient for the full and healthy maintenance" of the mother and child in "accordance with a suitable standard of living," and [d] interruption of work for nursing mothers with such interruptions considered working hours for pay purposes. Medical benefits include prenatal, confinement, and postnatal care by medical practitioners or qualified midwives and hospitalization when necessary with free choice of doctor and hospital.

The recommendation accompanying the convention spells out the medical benefits more fully: "Wherever practicable the medical benefits to be granted . . . . should comprise general practitioner and

special outpatient and inpatient care, including domiciliary visiting; dental care; the care given by qualified midwives and other maternity services at home or in hospital; nursing care at home or in hospital or other medical institutions; pharmaceutical, dental, or other medical or surgical supplies; and care furnished under appropriate medical supervision by members of such other professions as may at any time be legally recognized as competent to furnish services associated with maternity care."

Texts of the two conventions are available at the International Labor Office, 1825 Jefferson Place, Washington 6, D.C., for 50¢. Ask for the Official Bulletin of the ILO proceedings.

Meanwhile, the appropriations of International Children's Emergency Fund may come up for Congressional consideration again next year. Congress has already appropriated over $6,600,000 of an authorized $16,481,000 and indications are that some congressmen, as well as the State Department, are eager to appropriate the remaining sum of $9,800,000. The present appropriation is supposed to last through December 1953, but State Department officials say that, figuring on a U.S. contribution equal to one-third the total contribution of all other nations, services as well as money, the $6,600,000 should be turned over to the fund now, leaving the United States no money to match future contributions made in the next year and a half. Law sets the U.S. contribution to all such international organizations at no more than one-third the combined contribution of all other nations, but generally such organizations expect the United States to pay in the full one-third and figure their budgets accordingly.

Sometimes the U.S. contribution is one-third on paper but in actuality amounts to more than this legal limit, as in the case of the U.S. contribution to the World Health Organization. Congress appropriated about the U.S. share of one-third to WHO for fiscal 1953 but figured the one-third ratio on the basis of WHO's assessment budget of $8,900,000. This budget includes assessment of 10 Iron Curtain countries that no longer contribute to WHO. Because the organization has no machinery for withdrawing countries from membership, these 10 nations are carried on the rolls of the organization and are annually assessed but do not pay. Therefore, the U.S. contribution of $2,866,667 is actually 37% of WHO's $7,632,551 working budget.

Hospital Construction Plans

With congressmen at home campaigning, military hospital construction has taken the spotlight here in Washington. The Army and Navy are going ahead on new projects scheduled to begin construction sometime next year.

The Army has announced plans to begin construction next year on the first of 7 new multistory hospitals to be completed in the next three years. With a minimum capa-

(Continued on page 68)

PABALATE

Widely prescribed as one of the safest and most effective preparations specifically formulated for antirheumatic therapy.

Provides prompt prolonged pain relief by synergistic action of salicylate and para-aminobenzoic acid

Now available also as . . .

PABALATE®—SODIUM FREE

For use when sodium intake is restricted in management of the rheumatic or arthritic patient—

. . . as in congestive heart failure, essential hypertension, glomerulonephritis, pregnancy, and other complications—

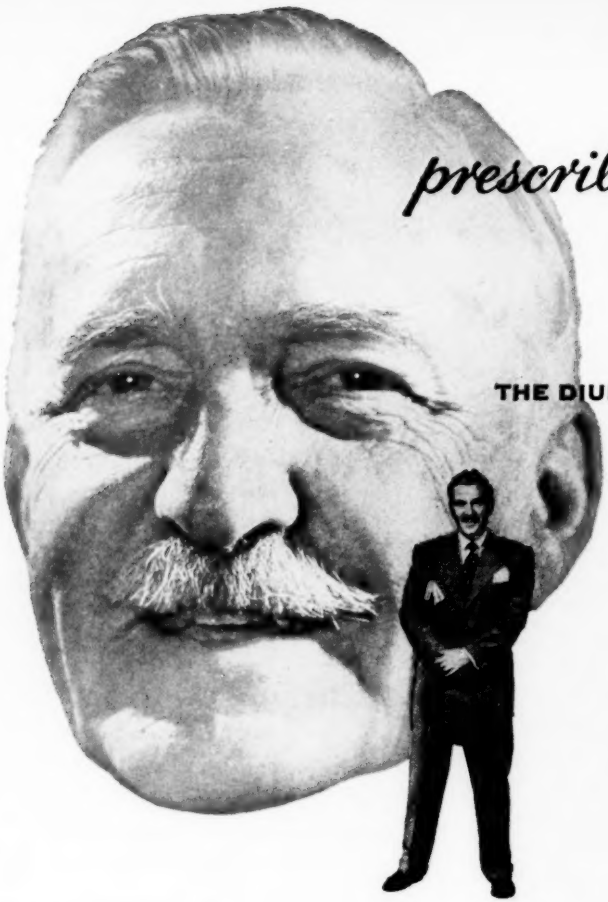
. . . or in conjunction with ACTH or cortisone therapy. Smaller doses of cortisone are required when salicylate[1] or para-aminobenzoic acid[2] is used in conjunction with the hormonal regime. Pabalate-Sodium Free thus offers the advantages of reduced expense for the patient and fewer side reactions.

1. Bull. Rheum. Dis. 1:9, 1951.
2. Am. J. M. Sci. 222:243, 1951.

Each enteric-coated tablet of Pabalate-Sodium Free (Persian rose color) contains ammonium salicylate 0.3 Gm. (5 gr.) and para-aminobenzoic acid (as the potassium salt) 0.3 Gm. (5 gr.)
bottles of 100 and 500

Richmond 20, Virginia

Ethical Pharmaceuticals of Merit since 1878



prescribed

THE DIURETIC

NEOHYDRIN

a product of *Lakeside leadership in diuretic research*

- eliminates dependence on xanthines, ammonium chloride, resins, aminophylline and other less effective tablets
- reduces dependence on injections
- permits more liberal salt intake
- maintains steady fluid balance

for a lifetime...

NEOHYDRIN*



lifetime therapy—

NEOHYDRIN helps keep the cardiac patient in fluid and electrolyte balance for his lifetime—a lifetime that might be impossible without such control of water and salt metabolism.

day in, day out diuresis—

NEOHYDRIN daily, maintains a steady, uninterrupted diuresis. This allows more liberal salt intake which benefits the patient psychologically. Even more important, liberalized salt intake permits the daily physiologic intake and output of sodium required by the body and safeguards against salt depletion.

prescribe NEOHYDRIN when indicated in

- Congestive heart failure
- Recurring edema and ascites
- Cardiac asthma
- Hypertensive heart disease
- Dyspnea of cardiac origin
- Arteriosclerotic heart disease
- Fluid retention masked by obesity
- And for patients averse to their low-salt diet

how to use this new drug

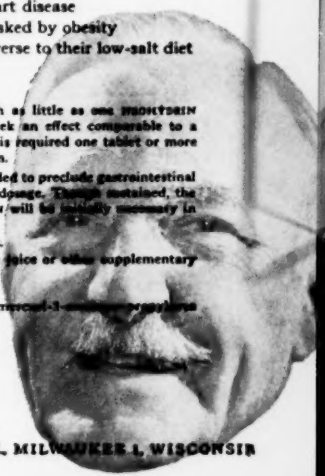
Maintenance of the edema-free state has been accomplished with as little as one NEOHYDRIN Tablet a day. Often this dosage of NEOHYDRIN will obtain per week an effect comparable to a weekly injection of MERCUHYDRIN.® When more intensive therapy is required one tablet or more three times daily may be prescribed as determined by the physician.

Gradual attainment of the ultimate maintenance dosage is recommended to preclude gastrointestinal upset which may occur in occasional patients with immediate high dosage. Though sustained, the onset of NEOHYDRIN diuresis is gradual. Injections of MERCUHYDRIN will be initially necessary in acute severe decompensation.

NEOHYDRIN is contraindicated in acute nephritis and nephrosclerosis.

Any patient receiving a diuretic should ingest daily a glass of orange juice or other supplementary source of potassium.

packaging Bottles of 50 tablets. There are 18.3 mg. of 3-chloromercuri-2-methoxypropylurea in each tablet.



Lakeside Laboratories INC., MILWAUKEE 1, WISCONSIN

city of 3,200 beds the 7 hospitals are designed for quick expansion and reportedly will be capable of housing 5,800 beds in case of emergency. They will be built at Fort Benning, Ga.; Fort Bragg, N.C.; Fort Knox, Ky.; Fort Riley, Kan.; Fort Belvoir, Va.; Fort Monmouth, N. J.; and Fort Dix, N.J. Navy hospital plans call for construction of an 800-bed hospital at Norfolk, a 1,000-bed addition at San Diego, and a 500-bed addition at Great Lakes.

Meanwhile, the Veterans Administration is still worrying about staffing the hospitals it already has. Appropriation cuts indicate a $30,000,000 reduction in medical care costs but specifically state that no physician, dentist, nurse, or other medical personnel can be laid off. VA has reduced its contracts for beds with Public Health Service by $1,500,000—from 650 beds to 375—in order to save money, and PHS, in turn, has closed 4 hospitals because of the reduction in patient load and money from VA. Hospitals at Kirkwood, Mo.; Mobile, Ala.; Portland, Me.; and San Juan, Puerto Rico, have been closed and outpatient clinics established instead.

With 20 new hospitals scheduled to open this fiscal year and staff shortages in some existing hospitals, VA is working on a system whereby it can open new hospitals and still continue to use existing ones. VA intends to shift available personnel into new hospitals as they open and close sections of older and isolated hospitals to insure maximum bed capacity and personnel utilization.



"You have been having a lot of gas lately, so you are sure you have gastritis!"

Life's Weary Moments

Think of a gag that fits the illustration. For every issue a new gag is published and the author sent $5. The Oct. 1 winner is

S. W. Wallace, M.D.
Detroit

Mail your caption to The Cartoon Editor
Caption Contest
No. 1
MODERN MEDICINE
84 South 10th St.
Minneapolis 3, Minn.

you . . . and your hypertensive patient . . . have a right to expect



REPETITION of RESPONSE

to minimal nitrite dosage

In long-term therapy, when the patient fails to get consistent hypotensive effect from nitrites, consider the possibility of developed *tolerance.*

Unless therapy is based continuously on minimal effective dosage . . . adjusted to patient tolerance . . . consistent repetition of response to nitrites is unlikely.[1]

With the RUTOL "interruption regimen," you can usually maintain hypotensive response indefinitely. RUTOL provides an established minimum effective nitrite dose (16 mg. of mannitol hexanitrate) together with rutin (10 mg.), to guard against vascular accidents, and phenobarbital (8 mg.), for cerebral sedation.

1. Goodman and Gilman: *The Pharmacological Basis of Therapeutics;* New York, The Macmillan Co., 1941.

RUTOL

TRADE MARK

PITMAN-MOORE COMPANY

Division of Allied Laboratories, Inc.

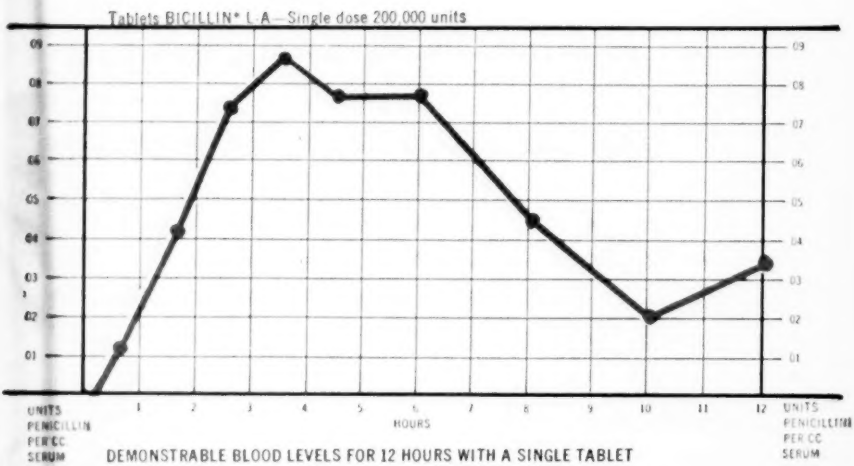
Indianapolis 6, Indiana

NOW...

only **2** *tablets daily*



for effective,
continuous
oral penicillin tablet therapy



DEMONSTRABLE BLOOD LEVELS FOR 12 HOURS WITH A SINGLE TABLET

Tablets

BICILLIN* L-A

BENZETHACIL

Dibenzylethylenediamine dipenicillin G

Wyeth

Supplied:
Pink, scored tablets containing 200,000 units per tablet. Bottles of 36

*Trademark

MODERN MEDICINE
THE JOURNAL OF DIAGNOSIS AND TREATMENT

Roentgen Therapy

and cancer of the breast

A Modern Medicine Editorial

All thoughtful physicians have wished many a time that they knew whether irradiation really improves the prognosis for a woman who has just had a radical resection of a cancer of one breast.

Obviously, to answer this question, a large number of patients must be studied statistically. One must have a great many cases so that the group can be broken into smaller ones.

The results of treatment vary with the degree of malignancy of the tumor, with the involvement of the nodes in the axilla, and with the length of time the patient waited before being operated on. No one who has studied Broder's scheme of grading the malignancy of tumors would ever attempt to evaluate cancer statistics unless he knew the malignancy of all the lesions with which he was dealing. The prognosis after the removal of a grade 4 lesion is so much worse than that after a grade 1 lesion has been removed, that the 2 cases cannot be studied together.

In a recent article, Stuart Harrington of the Mayo Clinic reported the results of a thirty-year study dating from 1915, when radiation therapy was begun. Curiously, the percentages of cure in the various five-year groups differ so much that one is puzzled. For instance, in the five years from 1920 to 1924 the results were more satisfactory for the patients who did not re-

ceive postoperative irradiation. In the other five-year periods the results were slightly more satisfactory for the patients given irradiation; the difference was about 8%.

One difficulty with such statistical analyses is that often the patient who was given irradiation is the one about whose future the surgeon felt the most discouraged. Such discrimination, of course, can decidedly influence the final picture. Harrington realized this, and so, since 1920, practically all patients at the Mayo Clinic who have had a radical resection, and have been found to have metastasis to the axillary nodes, have been irradiated.

Interestingly, in the cases *without metastasis* to the axilla, more patients were alive five years later without irradiation than with irradiation. The two percentages are 82 and 77.5 respectively. These figures would appear to be significant because 1,224 were not treated with roentgen rays and 1,556 were so treated. When the cases are divided according to five-year periods, the results are not uniform. This suggests again that the irradiation did not have any effect.

When the cases of women *with metastasis* to the axilla are divided into groups and studied in detail, some evidence emerges that irradiation helped a little, but the figures are not impressive.

Although these results are definite and discouraging, the probability is that for years, in many cases, physicians will feel that they must add irradiation to the mastectomy, if only so that the patient will not feel later, if things go wrong, that every chance for recovery was not given her.

WALTER C. ALVAREZ

Intractable Hiccups

Albert F. Gigot and Paul D. Flynn of the Lahey Clinic reported at the recent AMA meeting that good treatment for severe hiccup consists of pressure on the eyeballs for several minutes, or induced vomiting, or washing out the stomach, or intravenous injection of atropine, or heavy sedation with barbiturates, or inhalation of carbon dioxide. If these treatments fail, the left phrenic nerve can be crushed. In the majority of cases this will stop the spasms.—W.C.A.

Alertness to signs and symptoms is needed to diagnose a commonly overlooked clinical condition, pericarditis.

Diagnosis of Pericarditis

GEORGE R. HERRMANN, M.D., GEORGEANNA H. GREER, M.D., AND MILTON R. HEJTMANCIK, M.D.
University of Texas, Galveston

ERNESTO J. MARCHAND, M.D.
University of Puerto Rico, San Juan

FAILURE to recognize pericarditis, one of the most frequently overlooked clinical conditions, need not occur if physicians are alert to the typical signs and symptoms of the lesion. Pericarditis must be considered a possibility in conditions with equivocal chest and electrocardiographic findings warn George R. Herrmann, M.D., Ernesto J. Marchand, M.D., Georgeanna H. Greer, M.D., and Milton R. Hejtmancik, M.D.

The chief symptom is pain or distress which may extend to the neck, left shoulder, or arm or may be only a slight sensation in the precordium or the epigastrium. Dyspnea may be present alone or be associated with pain.

The pathognomonic signs are the pericardial friction rub, often felt or heard when the breath is held in expiration, and distantly muffled heart sounds. Bulging of the precordium or the intercostal spaces or distention of the neck veins may be noted. Other indications are malaise, fever, chills, cough, polymorphonuclear leukocytosis, cyanosis, and syncope. Dullness over the anterior heart or left lung base posteriorly or both may be observed.

Since the electrocardiographic alterations of pericarditis have been mistaken for those of myocardial infarction, the significant differences must be noted. Elevation of the S-T segment and concave upstroke of T waves are most characteristic in pericarditis. Negativity of the T wave appears in chronic but not acute stages and only after the S-T segment drops down to or below the isoelectric line. Q waves of myocardial infarction are absent in uncomplicated pericarditis.

Pyogenic organisms and uremia are the most common causes of pericarditis; many cases are idiopathic. Less frequent sources of the lesion are cancer, rheumatic fever, tuberculosis, collagenous disease, myocardial infarction, myxedema, and trauma.

Acute purulent pericarditis usually develops during severe infection or after penetrating trauma. Acute idiopathic or nonspecific pericarditis appears two or three weeks after acute upper respiratory infections and is considered of virus origin because of response to aureomycin therapy. Acute rheumatic

Pericarditis. Am. Heart J. 43:641-652, 1952.

pericarditis likewise appears several weeks after beta hemolytic streptococcus sore throat.

Primary noninfectious pericarditis may be myxedematous, uremic, or malignant in origin. Secondary pericarditis is infectious; tuberculous; malignant; pyogenic pneumonococcic from pneumonia, general sepsis, or mediastinitis; mycotic; hemorrhagic from a weeping dissecting aneurysm; or due to metastatic malignancy.

Hemorrhage from traumatic myocardial contusion, gunshot wounds, stab wounds penetrating into the pericardium severing a coronary vessel, and a ruptured dissecting aneurysm has induced pericarditis.

Epistenocardiac pericarditis is the result of myocardial infarction involving the epicardial surface of the heart. Pneumopericardium may result from the injection of air after removal of fluid.

Treatment is determined by the etiologic factor and the anatomic changes that have been established. Antibiotics used against primary infection often prevent or abort pericarditis. Serious effusions only occasionally will require paracentesis. Purulent exudate usually requires surgical drainage. Pericardiectomy should be considered early in cases of tuberculous pericarditis, immediately after streptomycin and PAS therapy. Aureomycin may be worth trying with acute idiopathic or nonspecific pericarditis.

¶ PLEURAL EFFUSION in persons more than 50 years old is most frequently caused by bronchogenic and breast carcinomas. These tumors, 43%, and congestive heart failure, 35%, comprised 78% of the 103 cases studied by Stanley H. Sahn, M.D., Melvyn Leichtling, M.D., and Hyman E. Bass, M.D., of the Beth-El Hospital and Jewish Sanitarium for Chronic Disease, Brooklyn. Bilateral involvement was usually a result of congestive heart failure; hemorrhagic fluid, in the absence of trauma and infarction, was invariably associated with neoplastic disease.

New England J. Med. 246:927-928, 1952.

¶ DIABETIC AMPUTEES today have a longer life expectancy than in the past. Contributing factors to the increased longevity probably are prolonged survival among the general population, use of new antibiotics, and increased knowledge of the management of peripheral vascular disease. Samuel Silbert, M.D., of New York City reports that 65% of 294 persons with diabetes mellitus survived more than three years after loss of the first leg, and that 41% lived five years or more afterward. Amputation of the second leg was required by 30% of 172 patients within three years and by 51% within five years.

Diabetes 1:297-299, 1952.

Chemical solutions capable of supporting circulation in the shock state need further clinical testing.

Status of Blood Substitutes

EDWIN J. PULASKI, M.D.
Walter Reed Army Medical Center, Washington, D. C.

FOR hemorrhage, the best replacement fluid is whole blood. Experience in World War II amply substantiates this statement.

However, many problems are encountered in the use of *whole blood.* Availability, storage, and refrigeration must be considered. Typing and crossmatching make field use difficult and, finally, the danger of virus hepatitis is ever present.

In a search for a satisfactory substitute for whole blood, attention was given to biologic materials, especially plasma. Many of the difficulties involved in whole blood therapy also obtain for blood derivatives. Plasma and serum albumin were first used.

Plasma effectively expands blood volume and will support the circulation in shock but fails to provide oxygen transport. Although circulation may be maintained by plasma, irreversible organ damage may result from tissue hypoxia. The severely wounded need whole blood.

Also, the danger of transmitting viral hepatitis by plasma, especially if pooled from many donors, is serious. An efficient means of destroying the hepatitis virus in plasma is urgently needed.

Serum albumin is another blood derivative capable of maintaining circulating blood volume. However, for several reasons, this product would be impractical for widespread use. Serum albumin is expensive and of limited supply; 5 units of plasma are required to produce 1 unit of albumin. Hepatitis also may be transmitted by this medium.

A *globin* solution prepared from erythrocytes is currently under study. The red cells from outdated blood used to be discarded after separation and preservation of the plasma. A method is now available which permits removal of the protein globin from the red cells. Between 32 and 48 gm. of globin may be prepared from the cells of 1 unit of blood. Osmotically, this amount of globin is equivalent to from 500 to 750 cc. of plasma. Unfortunately, globin preparations often cause undesirable reactions and use is still experimental. If difficulties can be overcome, globin will doubtless be a valuable blood substitute.

For the reasons discussed, stockpiling of adequate amounts of blood or blood derivatives to meet a possible national emergency cannot be done. Therefore, an extensive search for a suitable plasma substitute is underway.

Lt. Col. Edwin J. Pulaski, M.C.,

Clinical status of plasma substitutes. Chem. & Engineer. News 30:2187-2189, 1952.

U.S.A., lists the following characteristics of an ideal plasma expander:

- Osmotically equal to plasma
- Of a viscosity equal to plasma
- Retention time in blood stream about the same as plasma
- Stable when stored for long periods
- Nonantigenic and nontoxic
- Without unfavorable effects on cell function or structure

Chemicals of large molecular size appear most promising. Gum acacia, pectin, gelatin and gelatin derivatives, dextran, and polyvinyl pyrrolidone (PVP) have all been tried.

Gum acacia, first widely used in World War I, is capable of maintaining plasma volume temporarily but the substance is stored indefinitely in the body and causes injury to certain tissues, particularly the liver. For this reason, gum acacia is no longer employed.

Pectin, a polysaccharide obtained from citrus fruits, has been tried but abandoned because the product cannot be standardized.

In recent years attention has centered about gelatin, dextran, and PVP.

Dextran, a macromolecular carbohydrate, is formed by the action of the bacteria *Leuconostoc* on sucrose. The molecular weight of this sugar is around 75,000 but in any preparation particles vary widely in size.

After intravenous injection of dextran solution, 10 to 40% appears in the urine within one day. Some dextran undergoes slow metabolic breakdown and is excreted as carbon dioxide. Another portion of the injected dextran is stored in the reticuloendothelial cells of the body. After seventy-two hours, very little dextran remains in the blood stream.

Allergic reactions to dextran occur. About 1 in every 5 Americans studied is allergic to the bacteria *Leuconostoc* and possesses agglutinins to this organism. However, positive skin-sensitivity tests to dextran or anti-*Leuconostoc* antibody titers fail to correlate with clinical allergic reactions to injected dextran. Prediction of dextran reaction is thus impossible. Further, tolerance to dextran fails to develop, although reactiveness may be suppressed by anesthesia.

Dextran apparently is without harmful effects on tissues and, since the preparation is capable of temporarily maintaining the blood volume, may well become a widely used plasma expander. Several firms make dextran for experimental use.

Polyvinyl pyrrolidone (PVP) is a synthetic polymeric macromolecule first used in Germany. PVP is stable and nonantigenic and may readily be produced in large amounts. For restoring a reduced blood volume, PVP is as effective as plasma. However, the duration of the plasma expander action is variable, depending upon the size of the particles in the PVP preparation.

After introduction into the vascular system, 40 to 60% of PVP appears in the urine during the first day. A negligible amount is metabolized and some is taken up by the reticuloendothelial system. Acute toxicity has not been observed with the agent. Whether chronic ill ef-

fects will occur from PVP is as yet unknown. Probably this substance will also be important in plasma expander stockpiling.

Another group of large molecule plasma expanders currently being studied is composed of gelatin and gelatin derivatives. *Gelatin* is produced from animal collagen. As with PVP and dextran, the particle size varies but the final product can be regulated to some extent by controlling the conditions of production.

Polymerization of gelatin can be brought about, resulting in oxypolygelatin. Also, modification by treatment with an aromatic amine causes the formation of a gelatin derivative with a very low gel point, so-called *fluid gelatin*. Fluid gelatin appears to be a most promising plasma expander for hemorrhagic hypotensive shock.

In the body, gelatin products are both metabolized and excreted in the urine. The materials are nonantigenic and do not cause toxicity. However, a blood sample should be taken before giving gelatin since the substance may cause difficulty in typing and crossmatching.

Proteus and Pseudomonas Infections

ELLARD M. YOW, M.D.

WIDESPREAD use of antibiotics has increased the importance of *Proteus* and *Pseudomonas* as causative organisms, because some strains of these relatively nonpathogenic bacteria survive the antimicrobial agents and produce infection, often of a serious type. Bacterial flora change when sensitive bacteria are eliminated and resistant species multiply.

Reviewing 56 such cases, Ellard M. Yow, M.D., of Baylor University, Houston, urges awareness of the possibility of *Proteus* or *Pseudomonas* infection when patients originally benefiting from antibiotic dosage have renewed disease while still receiving therapy. Diagnosis is often possible by isolation of organisms from normally sterile body fluids, such as the blood stream, spinal fluid, or urine.

Discontinuance of antibiotic dosage is sufficient in some cases. In others, the best therapeutic agent may be determined by in vitro sensitivity of the particular strain of *Proteus* or *Pseudomonas* involved. Polymyxin B is most consistently effective against *Pseudomonas*, though some strains are sensitive in vitro to terramycin. Streptomycin, with large doses of sulfonamides, may be successful in *Proteus* infections.

Important in controlling the infection is surgical drainage and removal of nonvital tissue.

Development of Proteus and Pseudomonas infections during antibiotic therapy. J.A.M.A. 149:1184-1188, 1952.

Prolonged remission of acute disseminated lupus erythematosus is possible with ACTH or cortisone.

Acute Disseminated Lupus Erythematosus

LOUIS J. SOFFER, M.D., AND RICHARD BADER, M.D.
Mount Sinai Hospital, New York City

ACTH and cortisone constitute the most effective agents yet available for the treatment of acute disseminated lupus erythematosus, despite risks attendant in use. No actual cure results, but some patients are maintained in remission for indefinite periods of time.

All patients are hospitalized. The initial daily 100-mg. dose of ACTH is given intramuscularly in divided doses, and that of 200 to 300 mg. of cortisone by mouth or parenterally. The dose is gradually reduced until most patients are managed with a daily 20 to 50 mg. of ACTH or 50 to 100 mg. of cortisone. In some instances, therapy is discontinued entirely for variable periods of time, depending on the duration of remission. Treatment has extended from three to twenty months, the longest interval without therapy being nearly a year.

The results of such treatment for 18 patients reported by Louis J. Soffer, M.D., and Richard Bader, M.D., are listed in the table.

Of the 18 patients receiving ACTH or cortisone, one-half or more had fullness of face, edema, congestive heart failure, or hypertension; approximately one-third had acne, hirsutism, or alkalosis; and more than 20% had euphoria, striae, pigmentation, or convulsions. Depression was observed in only 3 cases; psychosis, diabetes melitus, and osteoporosis appeared in 1 case each.

Signs and Symptoms	*Results of Therapy*
Fever, arthritis, rash, mucous membrane lesions, pericarditis, pleurisy, organic mental syndrome, retinal abnormalities, and petechiae or purpura	Disappeared or cleared
Cachexia, abdominal pain, and Raynaud's phenomenon	Improved or subsided in all patients so affected
Leukopenia and thrombocytopenia	Improvement in at least 50% of patients so affected
Renal damage, elevated sedimentation rate, anemia, and L. E. cells	No significant improvement

Corticotropin and cortisone in acute disseminated lupus erythematosus. J.A.M.A. 149:1002-1008, 1952.

Though the number of deaths from tuberculosis is decreasing, incidence of the disease is not similarly dropping.

Whither Tuberculosis?

GODIAS J. DROLET AND ANTHONY M. LOWELL
New York Tuberculosis and Health Association, New York City

MORTALITY from tuberculosis is declining at an accelerated rate. Tuberculosis campaigns continue to be weak in the field of prevention.

Review of recent reports from many countries and large areas reveals, particularly in 1950, unusually low tuberculosis death rates, such as 22 per 100,000 population in the United States and Sweden, 26 in Canada, and 36 in England and Wales. The rapid decline, state Godias J. Drolet and Anthony M. Lowell, has been principally in evidence in the last five years.

This declining mortality should not lead to the conclusion that the prevalence of tuberculosis is similarly dropping. The case rate for tuberculosis substantially increased from 1940 to 1950 in the United States, Canada, England, Wales, Scotland, and Denmark. This difference between morbidity and mortality trends is not related to the increased number of mass chest roentgen surveys for the detection of tuberculosis. Close study shows that the contribution made by the surveys to the registration of cases is fairly limited and accounts for detection of less than 10% of new cases found each year in centers where elaborate mass surveys are utilized. Nevertheless, the surveys are valuable in uncovering cases early.

More patients are hospitalized today for tuberculosis than ever before and the results of chemotherapy and surgery are increasingly favorable. The institutional fatality rate in the United States is decreasing markedly, as shown by the ratio between the patients discharged alive to those dying in the institution in a particular year. This ratio is a reflection of improved care.

Since the use of streptomycin and PAS, many more patients have negative sputa before leaving the hospital. Almost two-thirds of the patients discharged last year were without tubercle bacilli in sputa, compared to only 17% in 1938.

Primarily, institutional care is responsible for so favorably modifying the mortality record.

The incidence of tuberculosis among children is a prime index of the prevalence of tuberculosis in the community. The main factors in controlling tuberculosis among children, as well as among adults, are adequate hospital facilities for isolation of open cases, elimination of tuberculosis in cattle, pasteurization of milk, and inspection of meats and many other foods.

Whither tuberculosis? Dis. of Chest 21:527-561, 1952.

When children leave home to go to school, contacts are widened and additional protection is required. For instance, in New Jersey, periodic examination of all school employees is required. At present, such examinations are repeated every three years. In addition, tuberculin testing and roentgen examinations are done, particularly for high school students. These measures have been instrumental in lowering the death rate from tuberculosis in a highly industrialized area. The death rates in Norway and Sweden, representing comparatively sparse populations, are actually higher, perhaps because too great reliance is being placed upon BCG vaccination.

In Rio de Janeiro, where the use of BCG for vaccination of newborn infants has increased over the last five years, the death rate from tuberculosis has not dropped as much for children as for adults. This data should demand careful analysis of BCG. The use of the material in the United States is recent and sporadic. In the Province of Quebec 20% of newborn babies are vaccinated. In Ontario, with a slightly larger population, BCG is practically never used. In 1949, however, the tuberculosis death rate in Quebec was 3 times that in Ontario.

In Iceland, where the greatest decline in tuberculosis mortality has taken place over the past twenty years, use of BCG has been most limited.

Coumarin-induced Hypoprothrombinemia

ROBERT STRAGNELL, M.D.

INTRAVENOUS emulsified vitamin K_1 rapidly reverses severe coumarin-induced hypoprothrombinemia. Bleeding ceases within three to four hours after administration of as little as 100 mg. of a stable nontoxic emulsion of the vitamin.

After the vitamin K treatment, resistance to coumarin therapy develops and may present a serious problem when continued anticoagulant dosage is desired. When this occurs, heparin should be given with the coumarin drugs until the undesired phase of hypercoagulability is terminated.

In all of 7 instances described by Robert Stragnell, M.D., of the University of Southern California, Los Angeles, hemorrhage occurred when prothrombin was depressed below 10%. In no case was bleeding sufficiently severe to require blood transfusion. Blood or plasma is indicated only to replace erythrocyte loss and restore the circulating blood volume. Some transient restitution of prothrombin may be accomplished by transfusion of blood or plasma.

Intravenous emulsified vitamin K_1 in the treatment of coumarin-induced hypoprothrombinemia. Am. Heart J. 44:124-130, 1952.

Restriction of activity is blamed for shoulder and hand disabilities seen with angina pectoris and infarction.

Shoulder Disability with Coronary Disease

JOSEPH B. CADY, M.D.
Guthrie Clinic, Sayre, Pa.

THE so-called shoulder-hand syndrome, which appears in 5 to 20% of cases of intractable angina pectoris or acute myocardial infarction, is most apt to occur in patients who restrict shoulder activity. Daily exercises are good prophylaxis.

The condition is often mistaken for bursitis, fibrositis, or arthritis. Actual inflammation does not occur, however, and few cases have radiographic evidence of structural disease of the shoulder, except for signs of disuse.

Development of the syndrome is perhaps stimulated by the misconception among the laity that a person with heart disease should refrain from raising the arms above the shoulders. Moreover, patients with severe coronary pain may unconsciously keep the muscles of the shoulder girdle tense as a protection against the recurrence of pain. The tension is greater on the side to which the coronary pain extends, explaining the relationship between the direction of radiation of cardiac pain and the site of subsequent shoulder symptoms. Pain is followed by stiffness, with further immobilization, which results in swelling of the hand and in symptoms peripheral to the shoulder.

Joseph B. Cady, M.D., studied 34 cases of the syndrome. All but 6 of the patients admitted periods of enforced immobilization of the shoulder or arm, or both, instituted by themselves, by friends, or by attending physicians.

The condition begins as pain in the shoulder and upper arm immediately or many weeks after acute myocardial infarction or may appear as an annoying side effect of intractable angina pectoris. The patient readily differentiates the coronary pain from that of the shoulder or arm. Later, weakness and limitation of shoulder motion occur. Such symptoms persist and the forearm and hand often swell. If the hand becomes involved, the changes may seem indistinguishable from the various stages of Dupuytren's contracture, with swelling, pain, and stiffness, then thickening, nodulation, and contractures of the palmar fascia. The final stage, infrequent, is a clawhand.

Physiotherapy consisting purely of vigorous active exercise is beneficial. Forced rotation and extension of the shoulder joints, as well as forearm and hand exercises, executed by the patients hourly while awake, are employed in the hospital and continued at home. In the 34 cases observed, 21 patients

Shoulder disabilities associated with coronary disease. Pennsylvania M. J. 55:549-552, 1952.

had excellent results, 10 good, and 3 fair. In 2 cases, shoulder involvement was severe enough to warrant initial use of anesthesia for manipulations.

Physiotherapy does not totally overcome the nodulations and contractures of the palmar aponeuroses and is of greatest benefit when only the shoulder is involved. But even in cases of hand involvement, swelling and pain decrease and mobility increases.

Preventive measures for patients with coronary heart disease need not be as strenuous, but consist in precautions against immobilization and recommendations for daily raising of the arms and use of the arms in everyday activities.

Technic for Splenic Puncture

JYOTI B. CHATTERJEA, M.D., CARLOS MEZA ARRAU, M.D., AND WILLIAM DAMESHEK, M.D.

ROUTINE use of splenic puncture in the diagnosis of splenomegalies of uncertain origin is feasible. The procedure, if done by the following technic, is usually less painful than a sternal puncture, explain Jyoti B. Chatterjea, M.D., of the School of Tropical Medicine, Calcutta, Carlos Meza Arrau, M.D., of the University of Chile, Santiago, and William Dameshek, M.D., of Tufts College, Boston:

The patient, who takes nothing by mouth for two hours beforehand, lies supine. The spleen is palpated and the lower border outlined. Local anesthesia with 2% procaine hydrochloride solution is given. Puncture, usually performed in the left upper quadrant slightly below the costal arch, is made with a 20-gauge needle, 6 to 8 cm. long, and a dry 10-cc. sterile syringe used to perform aspiration after the needle is embedded in the spleen. Puncture is made at the end of inspiration while the patient's breath is held, and cannot be done if the patient is uncooperative or unconscious. The subject then lies still for two hours.

The splenic aspirate is smeared on glass slides and stained with Wright and Giemsa stain. The detailed cellular pattern is studied under oil immersion and a differential count of the nucleated cells is made by counting 500 cells.

Splenic puncture should not be used in cases of severe hemorrhage, infectious mononucleosis, recent septic splenomegaly, acute malaria, or painful or tender spleens suggestive of recent infarction.

The procedure is indispensable in the diagnosis of myeloid metaplasia. The association of a fibrotic or sclerotic bone marrow with extensive myeloid metaplasia of the spleen is an absolute contraindication to splenectomy. Splenic puncture is also useful in the diagnosis of atypical aleukemic leukemia when the bone marrow is not completely diagnostic. Primary lymphosarcoma and recticulum-cell sarcoma of the spleen are often manifested by splenomegaly only.

Splenic puncture. Brit. M. J. 4766:987-990, 1952.

Compound F, with far greater physiologic activity than cortisone, is valuable in rheumatic arthritis therapy.

Hydrocortisone for Rheumatoid Arthritis

EDWARD W. BOLAND, M.D.
Los Angeles

THE adrenal cortical hormone known as Kendall's Compound F promises to excel cortisone in therapeutic power. Since dosage is smaller, side effects may be no greater, if not actually less.

Hydrocortisone in the free alcohol form is given orally in large quantities for rheumatoid arthritis. Hydrocortisone acetate injected into rheumatic joints relieves pain temporarily in some instances but rarely affects osteoarthritis.

Compound F, or 17-hydroxycorticosterone, differs from cortisone only in replacement of a ketone group in the steroid nucleus by a hydroxyl radical. The pure hormone is more soluble than its ester, hydrocortisone acetate, and is considerably more effective.

Until recently, complicated and expensive technics have limited production of the pure compound. By a new method, however, larger amounts may be supplied for clinical research; until recently none has been available commercially.

Several experiments suggest that hydrocortisone is the main glycogenic corticoid produced by the adrenal gland and is physiologically more active than cortisone, at least under stress.

Milligram for milligram, nonesterified Compound F is about twice as potent as cortisone if measured by muscle work tests, regressive changes in endocrine glands, and eosinophil response.

Edward W. Boland, M.D., describes effects when the free form was given by mouth to 10 patients with peripheral rheumatoid arthritis who had not previously been given hormones. The usual suppressive dose was 100 mg. daily, administered in 4 portions.

Benefits resembled those of cortisone acetate but were more prompt. Relief of aching, stiffness, and joint tenderness began in three to ten hours and in most instances reached a satisfactory level in four to fifteen days.

Sedimentation rate fell quickly and, in contrast to behavior with cortisone, closely followed symptomatic improvement.

In maintenance therapy in 15 cases, cortisone acetate had to be given in 1.59 times the dosage of pure hydrocortisone for equal effect. After transfer from cortisone acetate to Compound F, reactions such as edema and facial roundness were definitely reduced.

Hydrocortisone acetate given or-

Rheumatoid arthritis. Experiences with hydrocortisone (free alcohol) and hydrocortisone acetate. California Med. 77:1-6, 1952.

ally in 8 cases of peripheral rheumatoid arthritis was less effective in 6 cases than would be expected from cortisone acetate, and about the same in 2 instances.

Doses of 50 mg. injected into joints were helpful in 80% of cases. However, in only half the joints treated was the improvement pronounced, and greatest relief generally lasted only three days.

Results of injection implied that hydrocortisone acetate may be employed [1] for disease limited to 1 or 2 joints, [2] for multiple arthritis with only 1 or 2 resistant joints, [3] when cortisone, corticotropin, and gold salts are inadvisable, [4] for acute flare-up in 1 or 2 joints during otherwise adequate therapy, and [5] to assist orthopedic therapy of flexion contractures.

Guaiac Test for Occult Blood

C. LAWRENCE HOLT, M.D.

DESPITE lack of specificity, the value of the guaiac test for occult blood in stool specimens has been demonstrated.

Specimens brought to the office in a container are more satisfactory for testing than those obtained on the gloved finger at rectal examination. Light green discoloration of the stool after chemical mixture on a white porcelain tile plate is graded as + and considered unimportant. Bluish green developing slowly over more than one minute is graded as + + and classed as equivocal. Definitely blue reaction, developing slowly, is graded as + + +. Immediate deep blue is classed as + + + +.

Patients with positive reactions are instructed to send another specimen. Complete study of the gastrointestinal tract by roentgenograms and sigmoidoscope is recommended when subsequent reactions are also positive. Further study should be made in cases of initially positive but subsequently negative reactions.

C. Lawrence Holt, M.D., of Maine General Hospital, Portland, reports that the guaiac test gave erroneous results 11 times for stool specimens from 1,600 consecutive new office patients. Results were positive in 9 cases in which no disease of the gastrointestinal tract was revealed by barium enema studies and sigmoidoscopy. The reaction was negative in 1 case of extensive gastric carcinoma and in 1 of acute perforating duodenal ulcer and sigmoid polyposis.

In 77 cases, positive reactions were obtained from the first specimen; 40 of these had positive reactions with subsequent specimens. The test was diagnostic for 4 of these patients, since disease was not suspected, and was substantiative in 27 others.

The routine guaiac stool test. New England J. Med. 246:864-866, 1952.

Toxic manifestations produced by crude extracts of khellin are largely eliminated when crystalline preparations are employed.

Crystalline Khellin for Angina

L. A. NALEFSKI, M.D., W. B. RUDY, M.D., AND N. C. GILBERT, M.D.
Northwestern University and St. Luke's Hospital, Chicago

USE of crystalline khellin, visammin, permits low dosage levels and eliminates the unpleasant side effects such as nausea, anorexia, dizziness, and nervousness that accompany treatment with crude preparations of the drug. Daily doses of 50 to 100 mg. of crystalline khellin controlled anginal symptoms in 80% of patients so treated.

As criteria of improvement in giving the drug to 21 patients with longstanding coronary artery disease, L. A. Nalefski, M.D., W. B. Rudy, M.D., and N. C. Gilbert, M.D., used a decrease in number and in severity of attacks, a reduction in the amount of glyceryl trinitrate tablets taken, an increase in the exercise tolerance, and an improvement in the ballistocardiographic pattern.

Doses of 200 mg. daily are usually tolerated for only short periods. Reduction to the 50- or 100-mg. level and the concomitant administration of phenobarbital may control side effects. In 5 of 6 patients experiencing nausea and insomnia with daily doses of 100 mg., the side effects were eliminated when given a tablet containing 50 mg. of crystalline khellin, 15 mg. of phenobarbital, and 15 mg. of extract of belladonna.

Nervousness was the most distressing symptom for 2 patients who received 200 mg. of the drug daily for four weeks; 4 tolerated the drug fairly well for one to three weeks. The remainder had vertigo, headache, diarrhea, nausea, vomiting, and insomnia after only two days of treatment with 200 mg. After reduction to 100 mg. in 2 equal doses, about 50% of the patients still had nausea, but when 4 equal doses were given, only 4 of this latter group had side effects after six weeks of treatment. These 4 patients had no nausea when the therapy was changed to 2 daily doses of 25 mg. each. One patient with intractable angina, refractive to glyceryl trinitrate, tolerated 300 mg. a day for eight weeks and described only slight insomnia, which was controlled by phenobarbital.

All of the 19 patients who continued to take khellin for a considerable period had improved cardiac status and increased ability to withstand exertion without pain. Some anginal pain, though less severe and less frequent, was still felt by 5 of the patients.

The use of crystalline visammin in the treatment of angina pectoris. Circulation 5:851-857, 1952.

Inhalation of allergenic extract aerosols is probably more useful than skin tests in diagnosis of asthma.

Inhalation Test for Asthma

IRVING W. SCHILLER, M.D., AND FRANCIS C. LOWELL, M.D.
Boston University

IN some geographic areas, the dust season closely follows the period of ragweed pollination. This complicates the management of asthma and makes important the investigation of dust as an allergen in patients who have exacerbations in the early fall.

Irving W. Schiller, M.D., and Francis C. Lowell, M.D., find the inhalation test the most valuable diagnostic procedure for bronchial asthma.

In this test are used house dust extract in a concentration of 1 to 400, fresh 5% extracts of birch, oak, timothy, and ragweed pollens, and the molds, *Alternaria* and *Hormodendrum*. Tests are made at a time when patients are free or almost free of asthma. A single inhalation is given, followed five minutes later, if no reaction occurs, by 3 inhalations, and five minutes thereafter by 6, making a total of 10 inhalations.

Vital capacity and expiratory rates are measured at intervals of one and one and one-half minutes. Reduction of 10% in vital capacity or obvious slowing in expiration rate, with or without signs and symptoms of asthma, is considered indicative of bronchial or pulmonary sensitivity to the inhaled substance. Nonspecific reactions to irritating extracts must be guarded against.

When the glycerinated extracts are used, dilution and increase of the number of inhalations may be necessary.

An induced pulmonary reaction may be relieved by administration of an appropriate drug, such as nebulized Isuprel. Infrequently, a pronounced induced pulmonary reaction, although promptly relieved, is followed by asthma lasting for a few hours. Apprehensive patients should be forewarned of this possibility and suitable medication be made available.

Of 75 patients, 57 reacted to 1 or more allergens by inhalation. Dust caused reactions in 43, ragweed in 22, birch in 5, and oak, timothy, *Alternaria*, and *Hormodendrum* in 3 each. The incidence of skin reactions is much greater than the incidence of pulmonary reactions.

Occurrence of a pulmonary reaction to an aerosolized allergen cannot be satisfactorily predicted from the results of skin tests.

Sensitivity to house dust is readily confused with ragweed pollen

The inhalation test as a diagnostic procedure with special emphasis on the house dust allergen. J. Allergy 23:234-241, 1952.

sensitivity since, at least in the New England area, asthma between mid-August and mid-September is usually caused by ragweed pollen, while house dust is frequently the cause of symptoms from late September to the end of October. Asthma occurring from mid-August to the end of October is probably an expression of sensitivity to both ragweed pollen and house dust.

Nerve Block for Postoperative Pain

W. J. PUDERBACH, M.D., AND H. E. SHAFTEL, M.D.

INTERCOSTAL injection of Efocaine—procaine and butyl ammobenzoate in a water-miscible nonoily vehicle—at the conclusion of upper abdominal surgery may prevent postoperative pain and consequent complications.

W. J. Puderbach, M.D., and H. E. Shaftel, M.D., of the Swedish Hospital, Brooklyn, recommend such nerve block to obviate the atelectasis and pneumonia which may result from decreased respiratory excursion because of pain.

Just at the end of surgery, with the patient recumbent, the thoracic cage is elevated to make the field more accessible. The patient's arm is raised to stretch the skin over the ribs. A 22-gauge, 1½-in. needle is inserted perpendicularly until the rib is touched. The needle and skin are then moved down so that the needle slides over the rib just past the undersurface where the nerve lies. Aspiration is done to be certain that the needle has not penetrated a blood vessel or the pleural cavity. From 1 to 2 cc. of the solution is then injected and the area massaged.

This process is repeated over the next rib and so on until the desired area is anesthetized. The sixth to eleventh intercostal nerves are usually blocked, but the selection varies with the need. Bilateral blocks may be done for midline incisions or when an extensive transverse incision is made.

Of 30 patients so treated, 12 had no local pain postoperatively and required no narcotics or sedation; 14 had slight pain or some discomfort for the first twenty-four to thirty hours and were given sedative medication. Sedatives were given to 4 others for gas pains, back pain, headache, restlessness, and the like.

No pulmonary complications were observed and the patients were able to cough and move freely. The anesthesia lasted usually about two weeks, with a minimum of eight days and a maximum of twenty-one.

Prolonged intercostal nerve block in upper abdominal surgery. Journal Lancet 72:200-204, 225, 1952.

Difficulty of interpretation may explain divergent opinion on incidence of cancer with ulcerative colitis.

Cancer and Chronic Ulcerative Colitis

SADAO OTANI, M.D., AND ISIDORE SNAPPER, M.D.
Mount Sinai Hospital, New York City

CARCINOMA of the colon may be found combined with chronic ulcerative colitis. The malignant neoplasm is coexistent with, and not secondary to, the inflammatory process. An adenomatous polyp is probably the site of origin.

The coincidental finding of colonic carcinoma and ulcerative colitis may occur in several ways, state Sadao Otani, M.D., and Isidore Snapper, M.D. Such a finding and the difficulties in the interpretation of individual cases may well explain the divergence of opinion concerning the incidence of carcinoma with colitis.

Ulcerations of the colonic mucosa proximal to a stenosing lesion, malignant or benign, should be interpreted as inflammation secondary to the stenosis. The ulcerations are not always extensive and may be limited chiefly to the area of the distended colon. When multiple carcinomas of the colon develop and the patient has had longstanding ulcerative colitis, the possibility that the cancers are representative of a malignant transformation of an ulcerated, multiple familial polyposis must be considered.

Multiple polyposis of the colon frequently will lead to malignant changes and often causes chronic ulcerative colitis. Sometimes the polyposis is discovered only after the signs of colitis have drawn attention to the intestine.

Two kinds of polyps can be present. Familial adenomatous polyps are usually mushroom shaped, while simple inflammatory polyps caused by longstanding colitis exhibit a different, delicate, beansprout-like shape. The inflammatory polyps are covered with low colonic mucosa, whereas in the adenomatous polyp, areas of dedifferentiation are always found among the normal mucous glands. If the inflammatory polyps are not pedunculated, gross inspection is not sufficient to distinguish between inflammatory and familial polyps.

In familial polyposis, superimposed areas of ulcerative colitis may heal, leaving grossly atrophic mucosa containing occasional areas of dedifferentiation of mucous glands. Many preexisting polyps can be destroyed by the severe ulcerative process, and the atrophic mucosa may show early malignant changes in the dedifferentiated glandular structure. Sometimes the basic pattern is not obvious, either because most of the nonmalignant ade-

On the incidence of carcinoma in chronic ulcerative colitis. J. Mt. Sinai Hosp. 19:275-288, 1952.

nomatous polyps have been destroyed by the ulceration or because not many polyps were originally present.

Multiple areas of carcinoma in the colon are caused by multicentric malignant degeneration of adenomatous polyps and cannot be metastases from a solitary carcinoma of the colon secondary to ulcerative colitis. The adenomatous polyps are the ones that undergo malignant transformation, never the inflammatory type.

Among cases of surgically resected chronic ulcerative colitis, sporadic adenomatous polyps may be found besides the usual inflammatory polyps. Such adenomatous polyps may be responsible for the occurrence of carcinoma with chronic ulcerative colitis, especially if the possibility of metastasis from an extracolonic primary cancer can be eliminated. Ulcerative colitis is extremely rare in primary carcinoma of the colon which has not developed on the basis of malignant degeneration of an adenomatous polyp.

Intestinal Polyposis with Pigmentation

H. H. WOLFF, M.D.

ASSOCIATION of facial patches of dark pigmentation from birth or early childhood, especially on the lips, and polyposis of the intestines constitutes a rare but definite syndrome. The condition, though most unusual, should be considered when a patient without Addison's disease has melanin-pigmented lips or mouth and attacks of abdominal pain.

The association is familial. Several members of a family may have the complete syndrome of intestinal polyposis and pigmentation, while others have the pigmentation only. The patches of coloration may appear on the digits as well as on the oral mucosa and face. All patients reported have had dark complexions. The polyps have always been found in the small intestine and usually in the large intestine also. In 5 cases, evidence of malignant change was noted in a polyp.

So far, 26 cases have been described. An additional case in a 50-year-old man is reported by H. H. Wolff, M.D., of St. Helier Hospital, Carshalton, England. The patient, who has dark pigmentation on the lips, had resection of the small intestine for multiple polyps after 4 operations for recurrent intussusception. A 5-year-old son, who also had darkly pigmented lips, died after an operation for intussusception; 2 other children have unusual facial pigmentation, but neither has had attacks of abdominal pain.

Familial intestinal polyposis with pigmentation of lips, oral mucosa, face, and digits. Lancet 262:446-448, 1952.

Chronic Ulcers of the Leg





Superficial
Small – less than 1 inch
Above medial malleolus
Feeding veins enter ulcer
Stasis pigmentation

Varicose Ulcers



Penetrates deep fascia
Large – more than 2 inches
Above medial malleolus
Fibrosis of ulcer floor
Heavy infection
Periosteum involved occasionally
Gross edema



Postphlebitic Ulcers





Penetrates deep fascia exposing muscle
Series of small ulcers which coalesce
Anterior or anterolateral
Heavy infection
Gangrenous sloughing
Circulatory deficiency in leg as whole

Arteriosclerotic Ulcers

Type and degree of the associated vascular deficiency must be assessed before starting therapy of chronic ulcer of the leg.

Management of Chronic Leg Ulcers

A. M. BOYD, M.B., R. P. JEPSON, M.B.,
A. HALL RATCLIFFE, M.A., AND S. S. ROSE, M.B.
Manchester, England

CHRONIC ulcer of the leg is an all-inclusive term describing chronic ulceration confined to the lower part of the leg. The condition is an extremely common one and may occur with or without the presence of varicose veins.

The three basic types of ulcer described by A. M. Boyd, M.B., R. P. Jepson, M.B., A. Hall Ratcliffe, M.A., and S. S. Rose, M.B., are the varicose, the postphlebitic, and the arteriosclerotic.

The *varicose ulcer* is always superficial, never penetrating the deep fascia. The site is remarkably constant, occurring on the medial side of the leg, 2 or 3 in. above the medial malleolus. Large feeding veins usually are visible entering the u'cer. The veins may be invisible because of cellulitis but are palpable.

The skin around the varicose ulcer shows stasis pigmentation. Edema is absent or confined to a slight swelling of the ankle. Varicose eczema results from scratching. Infection is seldom heavy.

The *postphlebitic ulcer* always penetrates the deep fascia. The most common location is above the medial malleolus, as with varicose ulceration, but the area involved is usually greater and occasionally may extend completely around the leg. Superficial varicose veins are seldom seen and consequently neither stasis nor pigmentation occurs. Gross edema and cellulitis usually appear. A fibrotic base to the ulcer delays healing and infection is heavy. The underlying periosteum is sometimes involved.

The *arteriosclerotic ulcer* also penetrates the deep fascia, often spreading rapidly to expose muscle and tendons. The ulcer usually arises traumatically and therefore is seen over the anterior and anterolateral surfaces of the leg. The region becomes heavily infected and the tissue becomes gangrenous and foul-smelling and tends to slough off. Manifestations of circulatory deficiency are apparent in the limb as a whole.

The fundamental factors producing and maintaining chronic leg ulcers are infection, venous stasis, and arterial insufficiency.

Chronic ulceration of the leg results from poor personal hygiene and neglect. Early attention to varicose veins with scrupulous care of the unhealthy skin in the ankle region can prevent ulceration. The increasing knowledge of the man-

The logical management of chronic ulcers of the leg. Angiology 3:207-215, 1952.

agement of deep phlebitis should bring a decrease in such ulcers.

The actual healing of an ulcer is accomplished by [1] abolition of infection, [2] reduction of edema, [3] correction of vascular deficiency, and [4] skin grafting and possible excision.

Infection is eradicated by fomentations, daily soaks, moist Eusol dressings, and 12% sodium sulfate. When reasonable cleanliness is achieved, wet dressings of dihydrostreptomycin are used, to which the vast majority of organisms in chronic leg ulcers are sensitive.

Reduction of edema is accomplished by elevation of the limb, preferably with a wedge mattress.

Incompetent superficial veins are treated by obliteration of the feeding veins. Multiple ligation, retrograde injection of sclerosants, or stripping is used for the remaining superficial varicosities. Deep venous insufficiency may be combated by ligation of either the popliteal or superficial femoral veins. Lumbar ganglionectomy is done if arterial circulation is insufficient. The first 3 lumbar ganglia are removed.

Rapid and stable healing is best ensured by early grafting, which is done as soon as the ulcer is clean. Where much fibrosis forms at the base or surrounding the ulcer, excision followed by grafting is preferable.

The only logical method of preventing recurrence is by eradicating the causative factor which, in these ulcers, is circulatory deficiency—arterial, venous, or a combination of both. Sympathectomy is valuable in proved cases of arterial insufficiency by acting to develop collateral circulation. In addition, sympathectomy removes normal vascular tone, thereby improving the nutrition to the skin in all cases.

• CARCINOIDS OF THE COLON may invade the vascular system and produce distant metastases. Examination of a specimen resected from an aged woman with a biopsy diagnosis of adenocarcinoma revealed a large new growth, partly necrotic, protruding into the lumen of the sigmoid colon and extending bulkily into the subserosa. Small closely packed cells with granular eosinophilic cytoplasm were seen. Nuclei were large, round, and densely reticulated, with many mitotic figures. Argentaffin granules could be demonstrated in some cells. At the junction of carcinoid with smooth muscle, undulating fibrous strands of venous wall were fragmented and infiltrated by lymphocytes and plasma cells. A solid sheet of neoplastic cells had displaced the endothelium of the vein inward, reducing the lumen to a narrow crescent. Stanley S. Raphael, M.B., of Jewish Hospital, Cincinnati, regards this pathologic picture as evidence of vascular invasion. Since emboli probably do not gain entrance into veins until late in the disease, metastases are generally limited to regional lymph nodes and the liver.

Am. J. Clin. Path. 22:564-568, 1952.

Many of the problems encountered in wearing an ileostomy bag are obviated when a stab wound ileostomy is used.

Stab Wound Ileostomy

FRANK H. LAHEY, M.D.
Lahey Clinic, Boston

LEAKAGE about an ileostomy bag is less, in spite of the patient's weight gain after colectomy, if the terminal ileum is brought out through a stab incision.

Severe ulcerative colitis is usually accompanied by much inanition and great loss of weight. After excision of the colon, a gain of 60 lb. or more is frequently noted, states Frank H. Lahey, M.D.

The extra weight forms a deep valley of scar tissue in the incision, with a bulging ridge of adipose tissue on either side. If the ileostomy has been implanted in the incision, adherence of the collar of the ileostomy bag to the skin is not complete or continuous. Ileal contents sometimes leak at the point where the bag, because of dimpling or retraction of the skin, does not tightly adhere to the flat surface of the collar of the bag. Distressing soiling and undesirable odor follow.

The difficulty can be overcome by having the collar of the bag molded to fit the valley of the incision. Such molding must be done individually, however, and often at increased cost and inconvenience.

A stab wound ileostomy solves this problem and also avoids the difficulty encountered when an ileostomy is close to the anterior-superior spine, the costal margin, or the umbilicus.

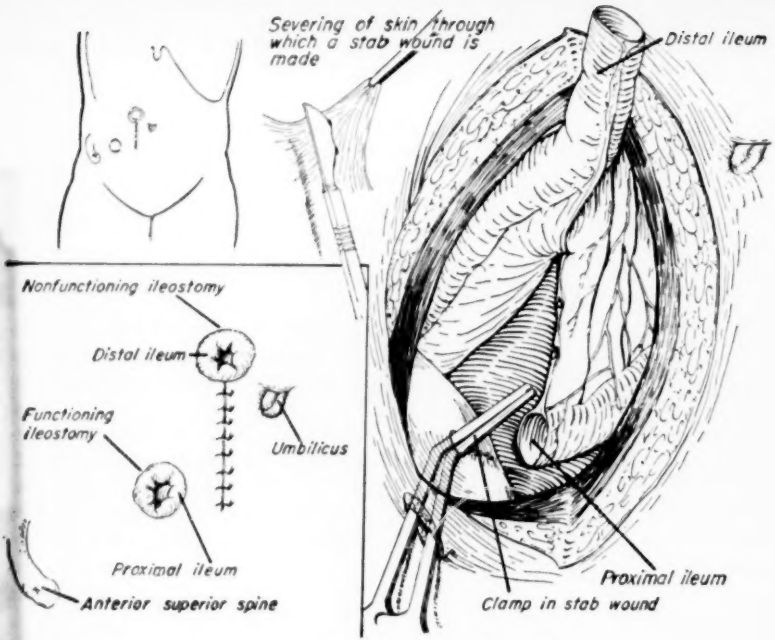
A spot is selected midway between the anterior-superior spine and the umbilicus and a little above, either on the left or the right (see illustration). If the ileostomy is preliminary to a colectomy, the lateral site is more desirable in order not to complicate the incision for later removal of the colon and rectum.

The skin is picked up with an Ochsner clamp and elevated to a peak, and a small area of skin is excised. Using direct vision, a knife is then stabbed directly through all layers of the abdominal wall into the peritoneal cavity. The opening is enlarged with the fingers to a size comfortably adequate to permit the withdrawal of the ileum and attached mesentery for a sufficient distance on the abdominal wall to provide a good ileostomy, preferably 1 to 1½ in. long.

An angulated Ochsner clamp is introduced through the stab wound, the ileum is grasped, and the distal ileum beyond this point is seized with another Ochsner clamp. The ileum between the 2 clamps is burned through and the remaining ends are sterilized with the cautery.

The proximal ileum is withdrawn through the stab wound. The ab-

Advantages of stab wound ileostomy. Surg., Gynec. & Obst. 95:29-32, 1952.



Formation of stab wound ileostomy

dominal wall is lifted up and the mesentery is sutured to the parietal peritoneum to discourage prolapse. The skin is closed lightly about the ileum as the gut emerges from the stab wound. The clamp is left, and the ileum that is implanted upon the abdominal wall is wrapped in gauze. No sutures are employed to fix the ileum in place except the sutures from the mesentery to the peritoneum of the abdominal wound. The wound is then closed.

The ileostomy has the great advantage of simplicity, but more important, provides a complete circumference of smooth skin about the ileostomy to which the collar of any type of ileostomy bag may be securely cemented.

¶ PLASTIC RECTAL SPECULUMS, transparent, unbreakable, and nonconductive of electricity and heat, are described by Charles Alexander Lamb, M.D., of Tufts College, Boston. One end is closed; openings are cut into the wall at various levels. The tissue to be ligated or cauterized is pulled into view without bleeding by a funnel-shaped suction tube applied through a slit at the proper site. *New England J. Med. 247:25, 1952.*

Surgery for disk lesions should usually be resorted to only in cases not responding to conservative therapy.

Indications for Disk Operation

J. ALBERT KEY, M.D.
Washington University, St. Louis

WHETHER or not to operate on a disk lesion in the lumbosacral spine depends on the persistence and severity of the pain and disability and the patient's reaction to the symptoms rather than on physical or laboratory findings. Time is the most important factor in the cure of disk lesions without operation.

J. Albert Key, M.D., rarely advises operation unless the pain has persisted for at least four weeks, despite sound conservative therapy, or is of extreme severity or is recurrent.

With or without traction, bed rest protects the affected disk from pressure caused by weight-bearing or movement. Some form of support—a corset, belt, or brace—is provided for the low back, and excessive lifting, bending, or other such activities are avoided. Eventually the symptoms subside and the disability lessens, probably because of inspissation or shrinkage of the disk material which relieves the pressure that causes pain.

In some cases, the persistence and severity of the symptoms or tendency to recur on slight provocation makes operative removal of the disk advisable. Many patients cannot afford to be incapacitated for the length of time required by bed rest; others insist on operative therapy for the immediate relief from pain.

Surgical excision of the disk is relatively safe, with short convalescence, but results are not always beneficial. In good hands, operative therapy cures 50% of patients, substantially relieves 40%, and gives little relief or possibly increases pain for 10%. The patient should be advised to weigh operative risks against the long period of incapacity required by bed rest.

From the physician's point of view, surgery is indicated [1] when severe and disabling symptoms persist after several weeks or months of conservative treatment, [2] if the patient is disabled and needs to work for a living, and [3] for patients confined to bed by severe pain not relieved by bed rest with traction or by manipulation without a general anesthetic.

Results are better if the operation is performed while the symptoms are acute, especially if a ruptured and extruded disk is removed relatively soon after onset of symptoms.

A myelogram may be used as

Indications for operation in disc lesions in the lumbrosacral spine. Ann. Surg. 135:886-891, 1952.

confirmatory evidence after operation is decided upon, but results are not always helpful and routine use is not justified. If history, physical examination, and the clinical course indicate, surgery should be performed despite negative results with a myelogram. A myelogram localizes the disk in only about 70% of the cases.

Hypertension and Toxemia of Pregnancy

N. S. ASSALI, M.D., J. M. VERGON, M.D., Y. TADA, M.D., AND S. T. GARBER, M.D.

TESTS with tetraethylammonium chloride have diagnostic value in toxemia of pregnancy. The rise in the TEAC floor usually appears before weight gain or any other sign of toxemia.

The most important factor responsible for maintenance of normal blood pressure is the peripheral resistance, which depends upon the autonomic nervous system and unknown humoral agents. Drugs such as TEAC are capable of blocking neurogenic vasoconstrictor impulses to arterioles, making possible evaluation of factors involved in normal and abnormal blood pressures.

Changes in diastolic blood pressure reflect the status of the peripheral resistance, believe N. S. Assali, M.D., and S. T. Garber, M.D., of the University of Cincinnati, Lt. J. M. Vergon, M.C., U.S.A.F., of Castle Air Force Base, Calif., and Y. Tada, M.D., of Nishitonami-gun, Toyama Ken., Japan. If the TEAC diastolic floor does not fall below 90 mm. Hg, toxemia of pregnancy is indicated.

Extensive tests reveal that within the first ten minutes after receiving 400 mg. of TEAC intravenously: [1] The normal nonpregnant female has a slight drop in blood pressure. [2] The normal pregnant female in the third trimester has a pronounced drop in blood pressure, the preeclamptic patient a very small drop. [3] Preeclampsia superimposed on essential hypertension causes a moderate decline in blood pressure which is greater in the postpartum period, indicating that superimposed preeclampsia may prevent a greater fall in blood pressure. [4] Postpartum, the blood pressures of the normal and the toxemic patient return to prepregnant levels.

Following the autonomic blockage achieved by TEAC, the blood pressure is maintained by humoral mechanisms. Thus, in normal term pregnancy and in patients with essential hypertension, the blood pressure is maintained by neurogenic tone, the humoral factors playing a minor role. The opposite is seen in toxemia of pregnancy and acute nephritis, in which humoral factors predominate.

Studies on autonomic blockage: VI. The mechanisms regulating the hemodynamic changes in the pregnant woman and their relation to the hypertension of toxemia of pregnancy. Am. J. Obst. & Gynec. 63:978-988, 1952.

Careful observation, proper tests, and prompt therapy will give good results in most vaginal diseases.

Vaginal Disease: Recognition and Therapy

H. CLOSE HESSELTINE, M.D.
University of Chicago

PROMPT recognition and proper treatment are desirable for all types of vaginal diseases and will often prevent disability.

H. Close Hesseltine, M.D., points out that patients usually recognize vaginal diseases because of discharge, pruritus, bleeding, the appearance of a mass in the introitus, dyspareunia, and, occasionally, pelvic discomfort.

Infectious vaginal conditions include venereal diseases such as syphilis, chancroid, granuloma inguinale, and lymphogranuloma venereum; mycosis; trichomoniasis; postmenopausal vaginitis; childhood vaginitis; tuberculosis; and a few rare infections.

The noninfectious vaginal conditions include chemical burns and sensitization; irradiation; mechanical irritations caused by foreign bodies; benign and malignant neoplasms; and excessive cervical secretions.

One of the frequent infectious conditions, vaginal mycosis, occurs most commonly in pregnancy, but occasionally in the postmenopausal woman receiving estrogenic therapy or in diabetic patients. The invariable symptom of the condition is itch, with the pruritus sometimes so severe as to disturb rest. Inspection will reveal either thrush-like patches on the vaginal wall or caseous material in the vagina.

Good results are obtained by two to four weeks of treatment with 3% ricinoleic acid and 0.5% oxyquinoline in a tragacanth-acacia jel. The preparation is nontoxic, nonstaining, nonirritating, and economical to use.

Therapy may be continued to term during pregnancy and reduces the risk of oral thrush to the newborn as well as giving the patient comfort.

Vaginal trichomoniasis is a persistent infection but is successfully treated in the postmenopausal patient by 0.5 mg. of stilbestrol each night for three weeks, and then on alternate nights for another three weeks.

During the reproductive period, plain lactose, alpha or beta, gives good results. Treatment lasts four weeks or longer. If the disease persists, all focal sites, as the urethra, bladder, and cervix, must be carefully investigated. Any focal inflammatory process should be treated at the same time. Good anal hygiene is important.

Postmenopausal vaginitis has bacterial flora similar to that with trichomoniasis and occurs readily

Recognition and treatment of vaginal diseases. Wisconsin M. J. 51:360-362, 1952.

because of thin vaginal mucosa. Estrogens are effective.

Vulvovaginitis in the child persists unless treated and is a real menace for children in pediatric wards and even in grade schools because the infection spreads so easily. Penicillin and estrogen readily bring the disease under control, however.

Tuberculosis of the vagina is evidenced by a painful, firm, ulcerlike lesion with an irregular edge. Diagnosis is confirmed by smear or biopsy. Treatment consists of regular management of the primary site. Dihydrostreptomycin may be of considerable value in clearing the local lesion.

In the noninfectious vaginal inflammation, acute vaginitis may result from improper use of medication.

Sensitization and chemical burns are often caused by picric acid or gentian violet, and judgment must be used in advocating vaginal therapy either as a treatment or in douche form.

Irradiation by either x-rays or radium may cause necrosis or other reaction. Neglected or forgotten foreign bodies, such as pessaries, may produce pelvic abscesses if not periodically removed and cleaned. Objects such as a tampon, contraceptive equipment, sponge, or a cotton ball, may be the source of irritation and discharge. Mentally ill patients, as well as infants and small girls, may place foreign objects in the vagina. The principal symptom is vulvovaginal discharge, and the foreign bodies may be diagnosed by vaginoscopic examination or roentgenograms of the pelvis.

Benign neoplasms should be removed whenever symptoms or distortion of the vagina appears. Primary malignant disease of the vagina is extremely rare, and secondary lesions only indicate the extensiveness of the process and the poor prognosis.

CLIMACTERIC SYMPTOMS and postpartum lactation are adequately controlled in most instances by piperazine estrone sulfate (Sulestrex). Approximately 9 of 10 women with slight or moderate menopausal symptoms are relieved by daily doses ranging from 0.75 mg. to 4.5 mg., and 2 of 3 women with severe reactions may be expected to benefit from amounts up to 6.75 mg. Walter J. Reich, M.D., and associates of the Chicago Medical School and Cook County and Grant hospitals, Chicago, report that many surgical castrates and women with additional somatic taints are resistant to hormonal therapy and require evaluation of other, possibly psychogenic, factors. Daily intake of 18 to 24 mg. of the drug for three days, followed by 12 mg. for two days, completely inhibits mammary engorgement in 92% of parturients when treatment is begun within twenty-four hours of delivery. Once the mammae have filled, less than one-half of patients are benefited by medication alone.

Am. J. Obst. & Gynec. 64:174-178, 1952.

Prompt surgery, cyclopropane anesthesia, and transfusions are indicated for ruptured ectopic pregnancy with shock.

Ectopic Pregnancy with Severe Hemorrhage

BERNARD J. PISANI, M.D.
New York University, New York City

IN case of ruptured ectopic pregnancy with profuse bleeding and shock, an immediate abdominal operation should be employed, combined with blood transfusion and oxygen therapy.

Circulation is stimulated by cyclopropane anesthesia, and secondary bleeding can be controlled under direct vision.

Laparotomies were done in 322 cases at Bellevue Hospital between 1935 and 1948. Only 1 death occurred, owing to postoperative sepsis in a woman with bilateral chronic salpingitis, and all of 35 patients with severe hemorrhage and prostration survived. Successful methods are explained by Bernard J. Pisani, M.D.

Surgery is done as soon as possible after admission to the hospital, if 2 or more of the following indications are observed:

1] Red cell count of 3,000,000 or less per cubic millimeter, subnormal temperature, and systolic blood pressure not above 70 mm. of mercury, with low pulse pressure and rate of 110 or more per minute

2] Repeated episodes of syncope, shoulder pain, or acute lancinating lower abdominal or rectal pain

3] Signs of cerebral anoxia, on admission or later, and progressive soft distention of the lower abdomen.

The blood examination is done soon after entry, and an infusion of saline or plasma is generally started. Usually, about 3 pelvic examinations are completed for diagnosis, although 1 to 6 may be required. The period from admission to operation ordinarily lasts hardly more than three hours, but may be from thirty minutes to eight hours.

Preoperative medication is allowed only for reduction of pain or emotional upset. Morphine may be hazardous, and analeptic or vasopressor drugs are not used.

The safest anesthetic is cyclopropane given with oxygen, using the smallest possible amount and closed technic. After bleeding, the drug tends to increase arterial blood pressure and pulse pressure and slows the pulse rate. Ether entails the greatest risk, and Pentothal is unpredictable.

Since most patients lose about 1,330 cc. of blood, not counting old clots, a transfusion of at least 1 pt. is usually given. Though typing and cross-matching are desirable if time permits, a bank with 1 or two pt. of type O, Rh-negative blood always on hand may be lifesaving.

Management of ectopic pregnancy with massive intraperitoneal hemorrhage and shock. Surg., Gynec. & Obst. 95:149-154, 1952.

If 2 or more units of citrated blood, serum, or plasma are not sufficient, whole or freshly heparinized blood is employed, since blood pressure may be lowered by large amounts of citrate solution.

Fatal fresh hemorrhage resulting from transfusion is avoided by operating before, during, or just after blood replacement.

Celiotomy is performed, and surgery is generally limited to salpingectomy or salpingo-oophorectomy. For interstitial pregnancy, cornual resection or supravaginal hysterectomy may be necessary.

Secondary procedures include 1-point suspension, dilatation and curettage, aspiration of the cul-de-sac, and resection of an ovary. Free clots and blood encountered in the abdomen and pelvis are removed.

Blood pressure, which may drop just after operation, is ordinarily stable within half an hour. More blood and fluids may be required.

Oxygen administered by oropharyngeal catheter or tent, doses of sulfonamide or penicillin, antianemic therapy, and minimal sedation shorten the convalescent period. Walking begins in twenty-four hours; the patient remains in the hospital for about two weeks.

Terramycin for Purulent Vaginitis

O. ALLEMANN, M.D., AND F. LUDWIG, M.D.

TERRAMYCIN base is apparently the most effective antibiotic against the usual flora of purulent vaginitis.

O. Allemann, M.D., and F. Ludwig, M.D., of the University of Bern, Switzerland, find that 80% of the vaginitides are caused by mixed flora, the prevalent organisms being: the coli group, 41%; staphylococci, 21%; streptococci, 12%; and trichomonads, 12%. Of the two available terramycin forms, hydrochloride and base, the latter is the least soluble and hence the best for local application. The extremely slow absorption insures prolonged local action and a minimal blood level, practically excluding general resistance to the antibiotic.

Terramycin base was given to 71 patients, several of whom had been treated unsuccessfully with penicillin. Disappearance of the vaginal discharge and clinical recovery were noticed in all cases. In all but 2, smears taken after therapy were sterile.

Treatment consists of 2 to 3 vaginal tablets inserted daily for three to four days deep into the vagina. The purulent discharge disappears rapidly and the vaginal flora return to normal in five to eight days.

Vaginal terramycin tablets are indicated for preoperative and antepartum sterilization of the vagina.

Die behandlung der vagina mit antibioticis. Gynaecologia 133:285-292, 1952.

Though one of the commonest diseases of mankind, depression is often misdiagnosed as somatic.

Diagnosis of Depressive Reactions

M. D. FRIEDMAN, M.D.
Mount Sinai Hospital, Cleveland

EUGENE E. LEVITT, PH.D.
Cleveland Heights

DEPRESSION is responsible for much of the illness of adult life and causes great misery. Because physical symptoms are often prominent, the condition is frequently mistaken for somatic disease. Since with proper psychiatric management, particularly the selected use of electrocerebral therapy, nearly 90% of depressive attacks can be stopped in the space of a few weeks, the importance of correct diagnosis is obvious, points out M. D. Friedman, M.D., and Eugene E. Levitt, Ph.D.

Headache, head pressure, palpitation, extrasystoles, and digestive distress, all indicative of physical disease, may appear with depression and the doctor will make repeated studies to find the cause. Only minor deviations are found, insufficient to explain the patient's pain.

Some 5 cases of unrecognized depression are estimated to exist for every 1 diagnosed. And in many of the unrecognized cases, the patient is believed to have anemia, gastritis, spastic colon, cholecystitis, angina, goiter, or other disease.

Depressive reactions appear from youth to senility. At least one-third of the patients over 50 have had previous attacks. About 95% of all suicides occur in so-called mild depressive cases.

After complete medical study has failed to find significant somatic disease, the diagnosis of depression is made on the basis of the following symptoms:

1] Weariness and apathy. The patient has lost interest in the world and is completely introspective.

2] Profound loss of physical energy with rapid fatigability

3] Poor appetite, digestive distress, and, often, progressive weight loss

4] Disturbed sleep, early morning awakening, and no sense of refreshing rest upon arising.

5] Loss of sexual drive and vigor

6] Headache and head pressures

7] Great hypersensitiveness with outbursts of unprovoked and uncontrolled crying

8] Intellectual slowness with loss of confidence and inability to make decisions

9] Feelings of unreality—the depersonalization phenomenon

10] Hopelessness and despair, accompanied by thoughts of self-destruction.

Depressive reactions as a cause of chronic invalidism. Ohio State M. J. 48:607-609, 1952.

Depression may be subdivided into particular types:

Manic-depressive depression appears early in life, has wide swings of mood and activity level, and may have remissions lasting weeks, months, or years.

Recurrent depression may be included in the previous category, but lacks definite hypomanic swings. The depressed mood may be seasonal and occur only in spring or fall. The patient may make a marginal adjustment for many years and then suddenly become severely depressed.

In *reactive depressions* and *grief reactions*, the individual is unable to absorb blows of life and resume normal living after catastrophe.

Both men and women experiencing the metabolic and hormonal changes of the climacteric period have *involutional depressions* with agitation and anxiety as prominent symptoms.

Senile depression comes at an older age and is characterized by paranoid and nihilistic delusions. Agitation and hyperirritability are also common.

Patients with *psychoneurotic depression* travel from doctor to doctor seeking relief. The illness usually appears in early life, has no wide swings of mood, and is not provoked by any particular catastrophe. This syndrome becomes more intense the longer the patient goes without relief.

¶ THYROID CANCER in children is being recognized more often. Since mortality is high, all nodular goiters should be removed promptly by radical dissection. Only 42 cases in patients under 15 years were recorded from 1900 to 1940, compared to 50 from 1941 through 1950. In addition, Theodore Winship, M.D., observed 4 thyroid carcinomas at the Children's Hospital, Washington, D. C., and learned of 95 unreported cases by questionnaires sent to more than 500 large hospitals. As a rule, the first sign of disease was a painless nodule in the thyroid region or lymphatic drainage area.
Tr. Am. Goiter Assoc. 1951, pp. 364-389.

¶ ALLERGY TO VACCINES derived from viruses and rickettsiae propagated on chick embryos is unlikely, because resistance is acquired in eating of eggs and egg-containing foods. When Bret Ratner, M.D., Samuel Untracht, M.D., and Frederic Hertzmark, M.D., of New York Medical College and Seaview Hospital, New York City, repeatedly inoculated 319 nonallergic children with influenza and mumps vaccine, skin sensitivity to egg white developed in 5, or 1.6% of cases, but no symptomatic intolerance. Of 120 patients allergic to other materials, none were sensitized by immunization procedures.
New England J. Med. 246:533-536, 1952.

Stigmas disclosing organic brain disease are usually recognizable in early infancy in cases of cerebral palsy.

Early Recognition of Cerebral Palsy

MEYER A. PERLSTEIN, M.D., AND HARRY E. BARNETT, M.D.
Michael Reese and Cook County hospitals, Chicago

DIAGNOSIS of cerebral palsy can usually be made before a child is 6 months old. Prompt recognition permits immediate treatment, affording better results.

A careful history gives valuable clues to diagnosis. Spastic paraplegia is most common with prematurity, hemiplegia or quadriplegia is frequent with birth trauma or toxemia, and athetosis is often seen after anoxia.

Convulsions, which occur in about 40% of palsied children, are an early sign. Seizures are 3 times more frequent in spastic than in athetoid patients.

Feeding difficulties are especially common with athetoid children and may simulate symptoms associated with hypertonic infants—irritability, failure to gain weight, vomiting resembling that with pyloric spasm, colic, constipation, poor feeding ability, excessive crying, back arching, and drawing up of legs.

When such symptoms persist despite treatment, Meyer A. Perlstein, M.D., and Harry E. Barnett, M.D., warn that extrapyramidal brain damage should be suspected.

Drooling may be excessive because of dysphagia or reversed tongue movements. Speech may be delayed in athetosis but deafness, mental retardation, or lack of motivation must be considered as possible other causes.

Teething occurs at the normal time in palsied children, but anoxia and birth injury may produce metabolic disturbances with defective enameloblasts. The resulting faulty teeth are further damaged by excessive grinding common in cerebral palsy.

The sleep pattern may be disturbed. Apathetic children sleep almost constantly and must be aroused for feeding. Hyperirritable infants cry incessantly and have startle reactions during drowsy periods.

Cerebral palsied children appear smaller than normal. Spastic facies are masked and unresponsive. Athetoid infants may grimace inappropriately; open mouths are typical.

The legs are more severely involved with spasticity and the head, neck, and arms are most affected with athetosis. The movements of athetoid children are purposeless, unpredictable, and often preceded by sustained contractions. Voluntary efforts produce secondary overflow motion in other extremities. Spastic movements are explosive, jerky, with a disinclination to use involved limbs. Spastic adduc-

Nature and recognition of cerebral palsy in infancy. J.A.M.A. 148:1389-1397, 1952.

tors give the characteristic scissors gait.

Positive stretch reflexes are pathognomonic of spastic muscles. Shaking an extremity is a simple method of distinguishing tension athetosis and spasticity; athetoid limbs flail, spastic limbs become tense.

Lack of reciprocal kicking patterns or walking movements, normally present at birth, is an early sign of brain damage, as are delayed prehensile activities and flopping or rolling head motions.

Functional ability of hands is easily determined with a towel over the face. Normally both hands quickly attempt removal; by restraining one hand, the skill of the other is readily observed. With cerebral palsy, the ability to sit, stand, crawl, or walk may be delayed, abnormally performed, or impossible. Tendon reflexes are normal in athetoid children, but hyperactive in the spastic child.

Strabismus, common with cerebral palsy, exhibits daily variations in degree.

About one-third of children with cerebral palsy are mentally retarded. Spastic patients are twice as likely to have such deficiencies as are athetoid infants. Determining whether the observed abnormalities result from cerebral palsy, mental retardation, or both is sometimes difficult but obviously important for treatment. In cerebral palsy without mental retardation, motor function develops normally in all but handicapped parts.

Spastic or athetoid quadriplegic children may be unable to grasp objects because of poor muscle control but concentrated effort, eagerness, and desire to perform are usually apparent. Mentally retarded children without cerebral palsy reveal neither the ability to perform nor the desire to try.

Tests determining the degree of motor, social, language, and adaptive behavior development in handicapped infants are available and more reliable than standard psychologic tests, but should be used cautiously. Intent, desire, and determination must be considered in addition to achievement in assessing such children.

¶ TETANUS AND DIPHTHERIA immune antibodies can be formed by infants at birth. Physiologic maturity in this regard is attained between the third and sixth month of life. John J. Osborn, M.D., Joseph Dancis, M.D., and Juan F. Julia, M.D., of New York University and the New York Foundling Hospital, New York City, observe no significant difference in the development of antitoxin at 2 to 4 months and at 6 months of age. The response to tetanus toxoid preparation is faster and better, the improvement with both being more rapid during the first two months. The advisability of early immunization is related to the potency of the antigen used.

Pediatrics 9:736-744, 1952.

Anatomic and physiologic differences between the adult and the infant larynx create unique problems in care of stridor in childhood.

Laryngeal Stridor in Infancy

T. G. WILSON, M.D.
Dublin

LIKE hoarseness in adults, stridor is the usual symptom of laryngeal disease in infants. This difference occurs because the infant larynx is smaller in comparison to body size than the adult.

Moreover, in infancy, observes T. G. Wilson, M.D., tissues are softer, the axis of air entry is straighter, and the lumen is funnel-shaped. The larynx is easily thrown into spasm because of the instability of the infantile nervous system.

The important causes of intrinsic laryngeal stridor are:

Congenital anatomic abnormality—Congenital laryngeal stridor, webs of larynx, congenital stenosis of larynx

Tumors and cysts—Papillomas of larynx, cysts of larynx

Inflammatory conditions—Acute laryngitis, laryngotracheobronchitis, diphtheria (postdiphtheritic stenosis), the exanthems

Neurological abnormality—Tetany (laryngismus stridulus), neonatal tetany, recurrent paralysis

Trauma—Birth injury, injury from intubation

Foreign body—Vegetable, non-vegetable

Congenital laryngeal stridor occurs when unduly lax laryngeal tissue allows the structures surrounding the introitus laryngis to collapse under pressure of the inspiratory air stream.

In *laryngismus stridulus* the reverse is true; spasmodic contraction of the adductor muscles of the larynx causes the stridor. The attack occurs suddenly, often at night. The child has great respiratory distress, but recovers quickly. Incidence of the condition, usually a sign of tetany or spasmophilia resulting from rickets, is diminishing. Neonatal tetany with stridor is increasing, but symptoms are rapidly corrected by treatment with calcium gluconate, vitamin D, sedatives, and parathyroid extract.

Stridor of *acute laryngitis* of childhood is caused partly by spasm, partly by inflammation. The larynx is injected and hyperemic, with beefy-red subglottic swelling.

When the child's larynx becomes inflamed, as in *diphtheria* and *acute laryngotracheobronchitis*, the small laryngeal lumen is greatly reduced by the gross edema permitted by the loose areolar tissue of the larynx, particularly in the subglottic area. Acute laryngotracheobronchitis differs from diphtheria, however, in that the mucosa is more edematous and the secretion thick and tenacious. As with acute laryngitis, the primary cause of stridor is the relatively enormous swelling in the region of the conus elasticus. If the obstruction is severe, tracheostomy

Discussion on stridor in infants. Proc. Roy. Soc. Med. 45:355-358, 1952.

CHARACTERISTICS OF STRIDOR IN INTRALARYNGEAL CONDITIONS

	Direction	*Sustained or Spasmodic*	*Age of Onset*	*Presence during Sleep*	*Voice*
Congenital laryngeal stridor	Inspiratory	Sustained	From birth or soon after	Diminished	Clear
Laryngismus stridulus	Inspiratory	Spasmodic	From 6 months to 2 years	Attack wakens the patient	Clear
Tetany neonatorum	Inspiratory	Spasmodic	Soon after birth	Attack wakens the patient	Clear
Pertussis	Inspiratory	Spasmodic	Variable	Attack wakens the patient	Clear
Acute laryngitis	Inspiratory	Spasmodic	From 3 to 8 years	Occurs most often at night	Hoarse, strong
Acute laryngotracheobronchitis	Inspiratory or two-way	Sustained	Variable	Yes	Hoarse
Diphtheria	Inspiratory	Sustained	Variable	Yes	Hoarse
Congenital web	Inspiratory or two-way	Sustained	Soon after birth	Yes	Weak
Papillomatosis	Inspiratory or two-way	Sustained	Not usually before 2 years	When severe	Hoarse

should be done before signs of exhaustion appear.

Timing of the stridor (see table) may be a guide to the site of the obstruction. Ordinarily, an obstruction at or above the vocal folds causes inspiratory stridor; below that level, the stridor is usually double or expiratory. In conditions such as *congenital web of the larynx* and *papillomatosis*, the stridor may be either inspiratory or double.

¶ URETERAL COMPLICATIONS of regional ileitis include both inflammatory obstruction and extreme dilatation, probably as the result of an autonomic reflex. Of 6 cases observed at the Veterans Administration Hospital, Brooklyn, none was caused by retroperitoneal abscess resulting from fistula. Presenting symptoms were almost entirely urinary in some instances and gastrointestinal in others. Milton H. Redish, M.D., believes that intravenous pyelography should be done routinely in all instances of ileitis.

New England J. Med. 246:993-996, 1952.

Serious attention to the aftermath of prostatectomy will help the urologist to avoid many pitfalls in the future.

Five Years after Prostatectomy

ELMER HESS, M.D., RUSSELL B. ROTH, M.D., AND ANTHONY F. KAMINSKY, M.D.
St. Vincent's Hospital, Erie, Pa.

THE physician who asks, "How might we have avoided this difficulty?" in each case of continued or recurrent morbidity after prostatic surgery will gain valuable information for future procedures. With this object in mind, Elmer Hess, M.D., Russell B. Roth, M.D., and Anthony F. Kaminsky, M.D., present an analysis of morbidity, five years after prostatic resections.

Prostatic obstruction may be relieved by transurethral resection, or by perineal, suprapubic, retropubic, or possibly infrapubic enucleation of the gland. No appreciable ground has been gained in efforts to avert prostatism, and the process is apparently irreversible by physical, chemical, or biologic means. Surgical ablation of the obstruction remains the accepted mode of treatment. In competent hands, various procedures carry approximately the same incidence of mortality.

The fact that the young surgeon learning the technic of resection will probably rupture a few bladders or do a few overenthusiastic extirpations of tissue, including some of the external sphincter, is not an indictment of the method. The perineal operator will end up in the rectum more than once, and the surgeon proceeding transvesically will perhaps open the peritoneum or cause a profuse hemorrhage. The proponents of the retropubic approach will likewise not escape unscathed.

The hardest feat probably is to become a good resectionist, next most difficult is to master the perineum; easiest to do is a creditable suprapubic transvesical enucleation. Mastery of all technics is essential, however, in order to treat each case on individual merits.

The ideal result is an ability to void freely, forcefully, and without pain. The necessity for the later use of sounds and bougies, irrigations and instillations, or even a second operation can be lessened by the application of the proper technic initially. Follow-up reports five years after surgery indicate that morbidity may attend each technic, yet each has definite advantages.

Late recurrent or persistent obstruction occurs more frequently after transurethral resection, and a differentiation must be attempted between inadequate initial removal of obstructive tissue and a recurrent formation of adenomas. Younger patients, and all who are in sound physical condition aside from pros-

The aftermath of prostatectomy. J. Urol. 67:977-981, 1952.

tatism, should have open enucleations rather than endoscopic resections, or further prostatectomy may be required.

Persistent infection is more common after resection than after the other approaches, although adequate relief from obstruction is obtained. The coexistence of bladder diverticula seems to be the major cause. When diverticula are large and not too numerous, excision can be done suprapubically at the time of prostatectomy. If a two-stage procedure is necessary, perineal enucleation of the prostate or transurethral resection should be accomplished first, to facilitate the operative approach, and mobilization of the bladder at the second stage.

Urethral stricture is predominantly a complication of resection, but will be less frequent by the judicious use of perineal urethrotomy or adequate meatotomy. If the urethra does not readily accommodate instruments of the size of the resectoscope, open enucleation is required.

Preservation of sexual potentia is a greater problem after suprapubic or perineal enucleation than after the other technics. When sexual power is of importance to the individual, endoscopic resection or retropubic enucleation should be considered.

Pain from Aberrant Renal Arteries

NELSE F. OCKERBLAD, M.D.

TENSION on anomalous arteries to the lower pole of the kidney is capable of producing pain, even without appreciable hydronephrosis.

About 1 in 5 persons has 1 or more extrarenal arteries, but the vessels usually enter the superior pole of the kidney and apparently do no harm, states Nelse F. Ockerblad, M.D., of St. Luke's Hospital, Kansas City, Mo. If the aberrant artery arises from the common iliac artery and enters the inferior pole of the kidney below the hilus, extra stretch may be incurred, as with a guy wire. An artery arising from the aorta, above normal renal vessels, and passing behind the pedicle to enter the lower pole may be stretched by weight bearing.

Pain in the side is always present. Pus may appear in the bladder urine, but none will be found in the urine from either kidney. Hydronephrosis may be found by retrograde pyelography but is not sufficient to cause the pain. Malrotation of the kidney, caused by vessels arising from the common iliac, can occur.

Simple ligation and division of the aberrant artery, or arteries, permanently relieved the pain in 5 cases.

Aberrant renal arteries which in themselves produce pain. J. Urol. 67:810-814, 1952.

Knowledge of breathing patterns helps in evaluating respiratory problems met with in infantile paralysis.

Respiratory Problems of Poliomyelitis

ELIZABETH AUSTIN, M.D., CLARENCE W. DAIL, M.D., DAVID RUBIN, M.D., ALBERT G. BOWER, M.D., AND RUTH NYGREN ACKLEY, M.D.

Los Angeles County Hospital, Los Angeles, and Kabat-Kaiser Institute, Santa Monica, Calif.

INADEQUATE breathing in poliomyelitis should be recognized, analyzed, and dealt with promptly, to avoid lasting nerve injury or death. Use of the respirator is too often delayed until the patient is in extremis.

If breathing muscles are weak, oxygen therapy by nasal catheter is but partially effective, since accumulated carbon dioxide cannot be blown off.

A respirator is generally required when total capacity decreases more than 75% and, if failure is chiefly diaphragmatic, possibly with a 40% deficit. Fatigue, irritability, rapid pulse, use of accessory muscles, and other anoxic symptoms should also be evaluated.

Bulbar involvement rarely occurs alone. Bulbospinal and purely spinal cases with extensively affected respiratory muscles are much more common, warn Elizabeth Austin, M.D., Clarence W. Dail, M.D., David Rubin, M.D., Albert G. Bower, M.D., and Ruth Nygren Ackley, M.D.

The diaphragm is the chief primary breathing muscle. Accessories for inspiration may include the scalenes, sternocleidomastoids, clavicular portion of the trapezius, pectorals, and subclavians. At times, muscles attached to the hyoid bone and the tongue assist, or muscles that fix neck and jaw, such as masseters, temporals, and pterygoids, as well as the platysma.

Normal expiration is controlled relaxation of inspiratory muscles. Abdominal groups may take active part, also the serratus posterior inferior and transversus sterni.

In *quiet natural inspiration*, the diaphragm descends while abdomen and chest rise, with some flaring of lower ribs. If breathing muscles are weak, respiration is shallow but regular and occurs in various abnormal patterns.

Diaphragmatic paralysis results in breathing by chest expansion with abdominal retraction. During exhalation, the chest drops and the abdomen rises.

With *intercostal paralysis*, the chest cage is depressed during inspiration and the abdomen expanded. The chest rises and abdomen sinks as air passes out.

Present concepts in the management of the poliomyelitis patient with respiratory difficulty. Phys. Ther. Rev. 32:339-345, 1952.

Abdominal paralysis alone does not interfere with breathing, but the force needed for coughing is much decreased thereby, and, if mucus collects, complications may be the result.

Function is modified in various ways by combined muscular weakness of different types.

With *involvement of the respiratory center*, breathing rate and rhythm are erratic and Cheyne-Stokes type may develop. The patient is apprehensive, if conscious. Other factors must be differentiated.

When the bulb is affected, breath may be jerky owing to aspirated fluid. Mechanical obstruction, such as paralyzed vocal cords, causes irregular rate and rhythm relieved by tracheotomy.

The muscle spasm syndrome, with tenderness and stretch pain, causes shallow choppy movements and uneven rate.

Intercostal spasm produces a rigid chest with sore muscles and diaphragmatic breathing.

Diaphragmatic spasm is associated with abdominal distention. During efforts to expand the chest, neck muscles are used, and during expiratory phase the muscles of the abdomen.

Abdominal spasm may inhibit motion of the diaphragm and impair coughing.

Anoxia should not be mistaken for malingering or insubordination on the part of the patient.

The symptoms of poor ventilation are wakefulness, restlessness, anxiety, mental confusion, and exhaustion. Muscles of nose, neck, and abdomen may be active, but if accessories are paralyzed the victim may appear to breathe quietly during severe depletion. Dangerous limits can be reached before cyanosis is noted.

When breathing is embarrassed by weak or paralyzed muscles, a respirator is definitely required. Apparatus may be necessary for spasm, if intensive hot pack therapy of the chest and abdomen fails to ease respiration.

¶ POLYMYXIN B AND BACITRACIN, combined in concentration of 8,000 and 400 units, respectively, per gram of base, have proved especially effective in controlling skin lesions harboring both gram-positive and gram-negative organisms. Of 147 patients observed by Frank M. Gastineau, M.D., and H. J. Florestano, Ph.D., of Indiana University, Indianapolis, only 3 failed to benefit from the treatment. The primary condition was not aggravated in 75 cases of infection superimposed on other diseases. Sensitization is rare. The combination, Polycin, represents the incorporation of the drugs into a greaseless ointment consisting of liquid petrolatum, white petrolatum, a polyhydric alcohol fatty acid ester (Glyco wax S 9832), polyethylene glycol 400 di-stearate, and polyethylene glycol 400 di-laurate.

Arch. Dermat. & Syph. 66:70-75, 1952.

Pruritus, when a symptom of a stress disorder, sometimes may be relieved by simple psychotherapy.

Itching in Tension States

C. D. CALNAN, M.D., AND DESMOND O'NEILL, M.D.
St. John's Hospital for Diseases of the Skin, London

IN some people, emotional stress arouses itching. The patient's symptom tends to appear at times of unusual worry or annoyance, particularly if feelings are repressed. Intensity varies with degree of strain; on release of tension, pruritus generally subsides.

The patient often understands the nature of the lesion and seldom objects to investigation and treatment. A few months of simple psychotherapy in an outpatient clinic may be effective. Some persons improve on withdrawal of exciting factors, others become adjusted to their trials.

Some patients are reluctant to discuss personal affairs and may deny or be genuinely unaware of maladjustment. If the worries are subconscious, the physician should explain the illness by relating the course to the life story.

C. D. Calnan, M.D., and Desmond O'Neill, M.D., found 3 types of involvement in 30 cases of itching referred for psychiatric appraisal. Pruritus occurred without lesions in 10 instances, with excoriations in 6, and with lichenification in 14.

All the patients had relapses and exacerbations during periods of prolonged emotional stress. In 23 cases, the skin disorder began under especially taxing circumstances.

Psychogenic itching may be diagnosed by the following criteria:

1] Onset and course related to events calling forth emotions too strong for the patient to handle.
2] Tension shown in other ways than pruritus.
3] Decrease or disappearance of skin irritation when the unpleasant situation is mastered.

In the typical case, feelings are controlled during the day but mount with weariness at night. In bed, warmth and coverings stimulate the skin. Scratching the affected area may provide satisfaction for thwarted desires or self-punishment for guilty thoughts or deeds.

Associated ailments are fatigue, depression, poor sleep, irascibility, bodily pains, and indigestion, which diminish with the chief complaint under treatment.

Excoriations are scattered irregularly on arms and legs, seldom on the trunk. Lesions are small, nondescript, and not linear as in dermatitis artefacta.

Resentment may be outstanding. In 1 case a mother, upset by noisy children and a jealous husband, concealed her reactions but itched when agitated. The patient im-

Itching in tension states. Brit. J. Dermat. 64:274-280, 1952.

proved when encouraged to express herself freely.

A little girl cooped up with intolerant grandparents was not helped by treatment. In such a case, more congenial surroundings may be the only solution.

Pruritus without lesions often involves the anus or vulva and may be related to unsatisfactory sexual experiences.

Lichenification is commonly lichen simplex chronicus, Vidal type. Various sites are affected, especially the nape in women. The affective content is a blend of anxiety and resentment, the former emotion often uppermost.

Fungous Disease from Cattle and Horses

OTIS FIELD JILLSON, M.D., AND WILLIAM R. BUCKLEY, M.D.

BARN itch, a fungous disease common in rural New Hampshire and Vermont, spreads from affected farm animals to human beings at the site of a superficial injury such as an abrasion.

Trichophyton faviforme is generally responsible and, occasionally, *T. mentagrophytes*. In a series of 24 cases, Otis Field Jillson, M.D., and William R. Buckley, M.D., of Dartmouth College, Hanover, N. H., observed 4 types of lesions:

1] Ringworm patches with less central clearing than usual and more extensive peripheral spread

2] Agminate folliculitis, consisting of sharply margined red edematous plaques and grouped follicular pustules

3] Kerion, large raised boggy crusted masses that drain purulent material from many openings

4] Granuloma of Majocchi forming persistent nodules under apparently healthy epidermis.

Allergic manifestations include a transient papular dermatophytid and a persistent positive reaction of tuberculin type after intradermal skin test with trichophytin. Under the microscope, large spores or chains of chlamydospores are seen about hairs, in pus, and less often in scales obtained from involved areas.

Kerion requires cool wet dressings and removal of loose hairs to facilitate drainage. In other forms of infection, folliculitis should be produced by saturated solution of potassium iodide, 5 drops applied three times daily, and epilation should be done. Resistant cases may respond to iodides taken internally or to repeated trichophytin injections.

Local discomfort but no symptoms develop ordinarily, and infections disappear spontaneously in four to eight weeks, with the exception of ringworm and Majocchi granuloma, which are extremely persistent unless adequately treated.

Fungous disease in man acquired from cattle and horses. New England J. Med. 246:996-999, 1952.

Glaucoma

Adapted by Inga Platou from "Glaucoma," a medical film exhibited at the American Academy of Ophthalmology and Otolaryngology. Willis S. Knighton, M.D., of Columbia University, New York City, exhibitor; Franklin M. Foote, M.D., of Cornell University, New York City, and Virginia Smith Boyce, co-exhibitors.*

IN THE NORMAL eye, the aqueous humor produced chiefly by the ciliary processes travels from the posterior chamber through the pupil and leaves the eye at the angle of the anterior chamber, passing through the pectinate ligament and departing by way of the canal of Schlemm (Fig. 1). Anterior and posterior chambers are kept filled and the fluid drains away at the same rate produced. Intraocular pressure is between 18 and 24 mm. of mercury.

IF THE FLOW is obstructed or fluid is produced faster than drained, pressure rises to 30 or 40 mm. This is the basic condition in glaucoma (Fig. 2).

TO RESTORE normal drainage, a portion of the iris root may be removed, reestablishing communication between the anterior and posterior chambers, or a new filtration pathway within the eye may be opened by creating a cleft between the sclera and the ciliary body, allowing the aqueous to pass into the suprachoroidal space (Fig. 3).

OTHER SURGICAL PROCEDURES include sclerectomy, iridencleisis, and cyclodiathermy (Fig. 4). Removal of a piece of the sclera with a portion of the underlying iris root will provide a new external channel for drainage. Sometimes a tongue of iris tissue is included in an incision through the sclera to maintain a filtering scar. Destruction of the secretory function of part of the ciliary processes is sometimes done to control tension.

*Produced for the National Society for the Prevention of Blindness by Sturgis-Grant Productions, Inc., New York City.

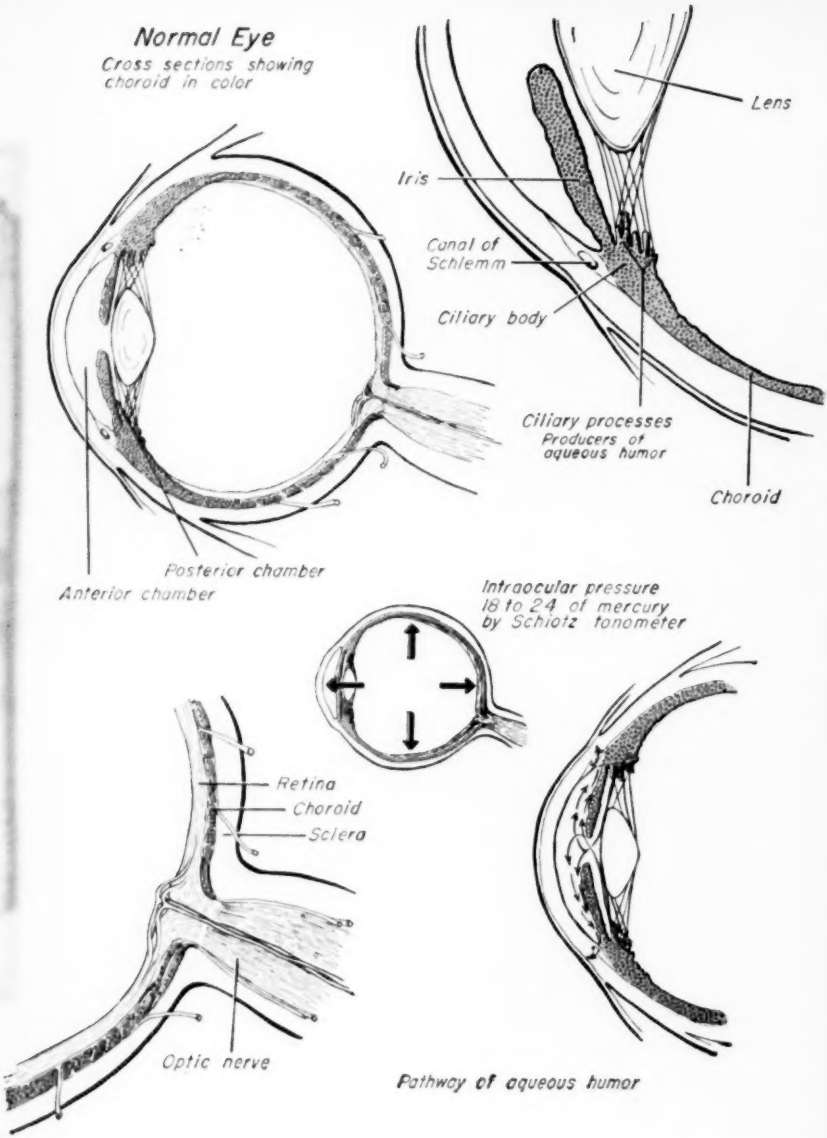

Normal Eye
Cross sections showing choroid in color
Lens
Iris
Canal of Schlemm
Ciliary body
Ciliary processes
Producers of aqueous humor
Choroid
Posterior chamber
Anterior chamber
Intraocular pressure 18 to 24 of mercury by Schiotz tonometer
Retina
Choroid
Sclera
Optic nerve
Pathway of aqueous humor

Figure 1

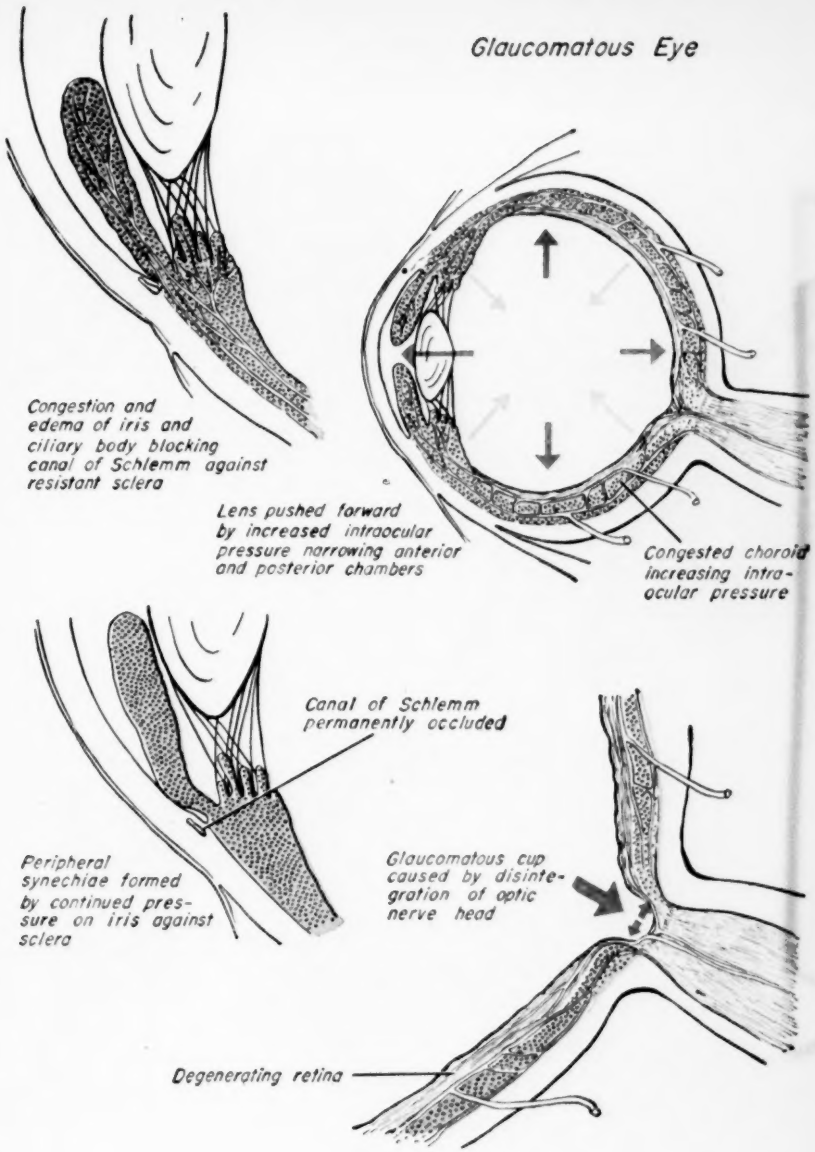

Glaucomatous Eye
Congestion and edema of iris and ciliary body blocking canal of Schlemm against resistant sclera
Lens pushed forward by increased intraocular pressure narrowing anterior and posterior chambers
Congested choroid increasing intraocular pressure
Canal of Schlemm permanently occluded
Peripheral synechiae formed by continued pressure on iris against sclera
Glaucomatous cup caused by disintegration of optic nerve head
Degenerating retina

Figure 2

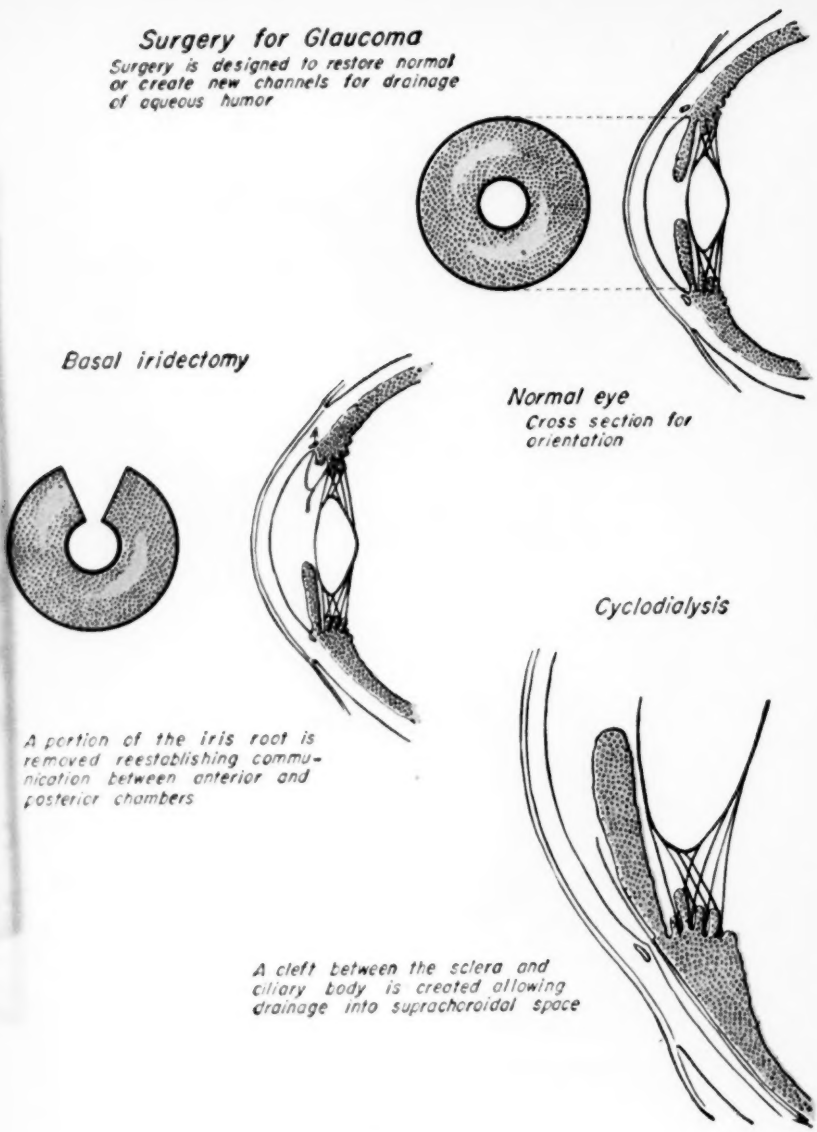
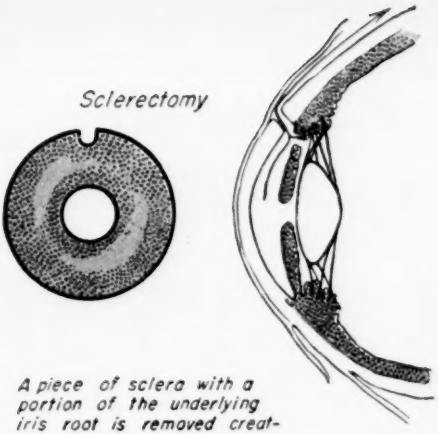

Surgery for Glaucoma
Surgery is designed to restore normal or create new channels for drainage of aqueous humor
Basal iridectomy
Normal eye
Cross section for orientation
Cyclodialysis
A portion of the iris root is removed reestablishing communication between anterior and posterior chambers
A cleft between the sclera and ciliary body is created allowing drainage into suprachoroidal space

Figure 3

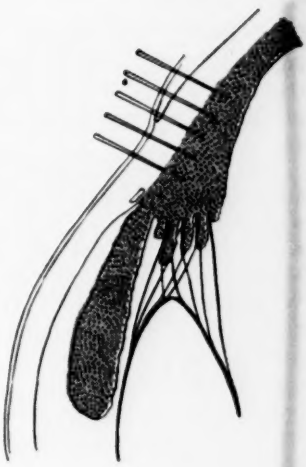
Surgery for Glaucoma
(continued)

Sclerectomy



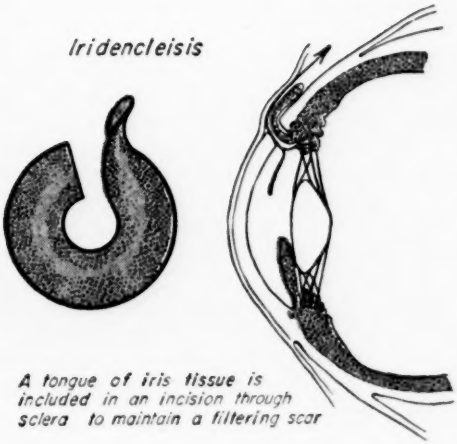
A piece of sclera with a portion of the underlying iris root is removed creating an external channel into the space under the conjunctiva

Cyclodiathermy



Secretory function of some of the ciliary processes is destroyed to control tension

Iridencleisis



A tongue of iris tissue is included in an incision through sclera to maintain a filtering scar

Figure 4

Inhalation of trichlorethylene vapor is an easy, safe method of self-induced analgesia, practicable in many operative procedures.

Trilene Analgesia in Plastic Surgery

K. L. PICKRELL, M.D., C. R. STEPHEN, M.D., T. R. BROADBENT, M.D., F. W. MASTERS, M.D., AND N. G. GEORGIADE, M.D.
Duke University, Durham, N. C.

SELF-INDUCED trichlorethylene analgesia gives complete and safe relief from pain in many operative procedures, especially for burn therapy.

The agent, Trilene, produces analgesia quickly and efficiently and with few side or after effects, state K. L. Pickrell, M.D., C. R. Stephen, M.D., T. R. Broadbent, M.D., F. W. Masters, M.D., and N. G. Georgiade, M.D. The inhalation compound may be employed for all cases not requiring profound relaxation unless the procedure is extremely painful, as in operation on the nail bed.

The agent is administered with a small portable hand mask and inhaler. The cylinder is nonspillable and essentially indestructible.

The analgesia can be used in the emergency or operating room or the patient's home. No premedication is necessary, since salivary secretions are not stimulated.

Analgesia is commenced with loose application of the face piece over the nose and mouth by the patient, whether child or adult. The degree and depth of analgesia are controlled by the respirations, for the vapor is not emitted freely, being only slightly volatile. A nonrebreathing technic is used, with the expired air being blown into the atmosphere. Potency of the vapor can be controlled by adjusting the collar of the inhaler.

A pleasant analgesia is produced after 8 or 10 breaths, sufficient to allow the physician to begin the painful procedure. Consciousness may be lost but is quickly regained as the mask falls away from the face. Mental powers return within a few minutes and the patient will look and reach for the fallen inhaler. Automatic safety is thus assured.

No excitement reaction occurs either at the onset or after the momentary unconsciousness. Nausea or vomiting is rare. The vapor does not irritate respiratory passages, and existing pulmonary lesions are not affected. Respirations are not depressed and blood pressure is unaffected.

If early ambulation is desired, the patient can leave the hospital in about twenty minutes. A little dizziness and mental confusion may persist a short time.

The use of Trilene does not contraindicate or complicate the ad-

Self-induced "Trilene" analgesia in plastic surgery, with special reference to the burned patient. Plast. & Reconstruct. Surg. 9:345-354, 1952.

ministration of any other anesthetic agent.

Trilene has been used for more than twenty-four hours in obstetric labor without ill effect and has been administered daily for a week or more without deleterious reactions or any evidence of psychic trauma to the patient.

No injury to liver or kidney has been found after long-continued exposure to trichlorethylene vapor. The compound is excreted mainly from the lungs in expired air, a small amount being excreted through the kidneys as trichloracetic acid.

Since Trilene is noninflammable and nonexplosive, the actual cautery or electrocoagulation unit can be used without hazard.

Neurotoxic decomposition products are formed if the agent is exposed to air and sunlight for more than three or four days. For safety, any unused material in the inhaler should be discarded at the end of each day.

Trilene analgesia is particularly valuable in primary cleansing and debridement procedures for fresh burns and the removal of adherent dressings. Shaving of redundant granulations in old burns in preparation for immediate grafting is simplified, since Trilene causes noticeably less capillary oozing than other agents. The burn chemistry base line is not altered, and the immunity response and inflammatory reaction are neither impeded nor retarded by the material. Fluid intake is increased, since nausea or vomiting is rare, and hemoconcentration is less likely to occur.

Simple fractures can be reduced and other manipulation and stretch procedures done. Lacerations can be sutured or imbedded sutures removed.

Sequestra may be removed, biopsies made, teeth extracted, and myringotomies or cystoscopies done with a light degree of narcosis, yet with excellent analgesia. Since the analgesia is smooth and not attended by excitement, delicate procedures such as open or closed venesection are easily performed.

¶ PRESSURE MARK ARTEFACTS in chest roentgenograms are often mistaken for pulmonary infiltration, especially the early slight lesions of tuberculosis. These white opacities, resulting from technical errors in manufacture, handling, or processing of the films, depend upon a local change in the sensitivity of the film, with reversal of the response of the silver salts to exposure. The condition should be suspected if the negative appears darker than expected or of uneven density after ordinary timing and development. Recognition is easy if the crescent-shaped shadow is accompanied by a sharp black crinkle line or a linear white mark bisecting the concavity. Irving J. Kane, M.D., of Montefiore Hospital, New York City, advises immediate roentgen reexamination to confirm the nature of doubtful defects.

Am. J. Roentgenol. 66:803-807, 1951.

An Experimental and Clinical Study

Homografts of Fetal Membranes for Large Wound Surfaces

BEVERLY DOUGLAS, M.D.*
Vanderbilt University, Nashville

Prepared for Modern Medicine

SKIN grafts from human donors, though rarely giving permanent takes, are valuable as a temporary covering for severe burns. Such grafts may prevent loss of blood components, electrolytes, and proteins, keep the patient in nitrogen balance, and prevent infection, thus tiding the individual over a critical period.

Human skin, at best, requires a voluntary donor and an operation. The two fetal membranes, amnion and chorion, offer likely substitutes and are readily obtainable. Although results have been encouraging, widespread use of fetal membranes on extensive wounds should await completion of further studies.

Experimental Data

In 10 experiments, amnion and chorion were found to take readily when grafted on large superficial wounds on dogs, thus providing a dry surface in contrast to control wounds and, therefore, a satisfactory covering for varying periods as long as observed, in some cases for twenty-nine days. These gross findings were confirmed by microscopic sections reported by Dr. Ernest Goodpasture. The cells of the chorion appeared to be alive in specimens seventeen days after operation, and had actually adhered to the connective tissue and underlying capillary bed, and mitotic figures were present in the epithelium.

The thin layer of epithelial cells of the amnion had largely rubbed off in the seventeen-day sections, but the surfaces were still well covered with homogeneous hyalinoid membrane which was pink staining, and appeared to be characteristic of the hyalin connective tissue layer of the amnion.

The microscopic findings in the case of the membranes buried in pockets beneath the derma confirmed the above findings in every detail.

From the experiments, we were encouraged to try grafts of fetal membrane on burned patients, who gladly consented.

Clinical Application

Amnion was collected at recent deliveries under conditions as nearly sterile as possible. It was washed

*From the Division of Plastic Surgery, Department of Surgery, Vanderbilt University, Nashville. The author acknowledges with gratitude the kind help of Dr. Ernest Goodpasture throughout this work and wishes to thank members of the Department of Obstetrics and Gynecology of Vanderbilt University School of Medicine for help in collecting the membranes.

in saline and the two membranes were separated into large sheets with the gloved fingers.

The membrane was then grafted on wounds of burned patients in three ways, with results as described in the following 3 typical cases:

Case 1—Female, age 30. Amniotic membrane was collected from a recent delivery and washed with saline. A sheet, measuring approximately 4 by 7 in. or 28 sq. in., was sutured at the corners around the leg at the left popliteal space by the usual split-graft technic of perforating and quilting into depressions of the wound surface. The ordinary pressure dressing with a covering of elastic adhesive was applied.

Dressings at seven, fourteen, and twenty-one days showed the amnion to be grossly dry and adherent to the wound. Dressings did not stick when removed. Microscopic sections taken at thirteen days showed the granulating surface lined, interruptedly but almost completely, with a fairly thick hyalinized membrane that resembled the hyalin portion of the amnion. At twenty-one days, sections showed the same pink-staining hyalin membrane on the surface. This was quite different from the uncovered bleeding surface usually seen in granulating wounds when ordinary dressings are removed.

Case 2—Colored female, age 45. A sheet of chorion buried in a pocket under the skin made at the edge of a donor site, from which a split graft was cut, was removed after a period of fourteen days. Sections showed the chorion membrane to be alive. The nuclei of both epithelium and connective tissue layers were healthy and no hemorrhage was present to indicate anaphylactic phenomena (report by Dr. Ernest Goodpasture).

Case 3—White male, age 26. A sheet of chorion collected from a delivery within the hour was sutured on a fresh wound of the left lower dorsal region, from which a thick, split graft had just been cut. The chorion was sutured in place with a stitch at each corner and the usual pressure dressing was applied. The wound continued to be very comfortable; postoperative bleeding was negligible.

Seven days postoperatively the area of chorion was entirely dry, salmon colored, and nonadherent to the dressing, while other donor areas, including those immediately above and below the membrane, bled freely when the fine-mesh xeroform gauze dressings were removed. When an edge of the chorion graft was pulled away from its bed, the surface of the wound bled freely, strongly suggesting a "take." No exudation had occurred anywhere except at 2 areas under the upper portion of the chorion graft, where small blisters had formed. The microscopic findings completely confirmed those of the membrane's survival. A thick layer composed of living epithelial and connective tissue cells of the chorion was present and appeared to have grown to the underlying tissue of the patient.

In subsequent dressings the area grafted with the chorion homograft showed no ulceration, as did other donor areas, and appeared to give the patient less pain than other donor areas from which skin had been removed the same day.



"I don't recall the name but it cured Aunt Martha's cold in a day."

Book Chapter

Roentgen Diagnosis of Hiatus Hernia

MAX RITVO, M.D.,* AND I. A. SHAUFFER, M.D.†
Harvard University, Boston

From the book, Gastrointestinal X-Ray Diagnosis‡

PROTRUSION of a portion of the fundus of the stomach through the esophageal opening of the diaphragm into the thorax was formerly considered a very rare condition and of but slight clinical significance.

During recent years, numerous reports indicate that esophageal orifice hernias—hiatus hernias—are much more common than was previously supposed. The apparent rarity of the lesion previous to the widespread use of roentgen examination is not difficult to explain. This type of hernia has neither a definite history nor typical signs, so that clinical diagnosis is extremely difficult.

It is generally believed that hiatus hernia is congenital. It must follow that most patients have the condition for many years before symptoms appear. Actually, in most cases symptoms come at a period in life when one may expect the onset of symptoms of other conditions, all of which serves to complicate the study.

Symptoms—The symptomatology and clinical findings of hiatus hernia are inconstant and variable, so that although the existence of the condition may be suspected by the clinician, it is usually impossible to make the diagnosis with certainty on the basis of the history and physical examination alone. Furthermore, many of the complaints in hiatus hernia are also present in other commoner diseases. It is highly desirable, therefore, to establish a syndrome on which a definite diagnosis is tenable.

The typical symptom of hiatus hernia may be described as a sense of epigastric pain, distress, and fullness coming on shortly after or during meals. Frequently this symptom is associated with nausea, vomiting, regurgitation, belching, or a sense of burning. Not infrequently these symptoms are independent.

In some cases the symptoms are so severe as to necessitate interruption of the meal. However, on leaving the table and walking about for a short time, the patient may experience a sudden disappearance of the complaints, often with a feeling of something dropping or giving way in the region of the lower

*Assistant Professor of Radiology, Harvard Medical School; Director, Department of Radiology, Boston City Hospital.
†Instructor in Radiology, Harvard Medical School and Tufts Medical School, Boston.
‡Excerpts from a chapter of the book, *Gastrointestinal X-Ray Diagnosis*, 838 pp. Published by Lea & Febiger, Philadelphia, 1952. $20.

sternum. The patient is then able to return and finish the meal in entire comfort. Doubtless the food first ingested produces filling of the herniated portion of the stomach with distortion, compression, and complete or partial obstruction of the esophagus; on arising and moving about, the herniated portion of the stomach empties or reduces, with resultant disappearance of the symptoms.

In our experience this is pathognomonic of hiatus hernia, and although it occurs in relatively few cases, permits a practically definite diagnosis.

Rarely, the patients who have cardiospasm or esophageal diverticulum give a somewhat similar history. In these conditions, however, the relief is usually not produced by arising and walking about, nor is it so immediate and complete.

Often patients with hiatus hernia have difficulty in swallowing solid food, lack of appetite, and associated weight loss. Very frequently epigastric pain or distress appears at night or in the recumbent position, but in most cases this is relieved when the upright position is assumed. For the digestive symptoms, change in position or soda may bring relief. Occasionally a



Fig. 1. Paraesophageal hiatus hernia demonstrated on chest roentgenograms. [A] Sagittal roentgenogram with rounded area of density visualized through the heart shadow to the left of the spine (*arrows*). [B] Lateral projection. Area of radiance in the retrocardiac area represents the herniated portion of the stomach (*arrows*). [C] The cardia of the stomach lies above the diaphragm, large esophageal hiatus hernia (*arrows*).

patient complains of inability to raise gas.

There is often substernal pain or dyspnea or both, generally but not always unrelated to exertion. The pain may present a type of radiation similar to that of angina pectoris, but just as frequently the radiation is atypical. Furthermore, the patient with hiatus hernia may bleed. The bleeding may be of mild degree, which may well explain the finding of anemia characteristic of chronic blood loss, or the patient may have a hemorrhage sufficiently severe to endanger life. It appears from our study that symptoms and complications are not related to the size of the hernia.

Physical signs—Small or medium-sized hernias give no physical signs. Large hernias simulate pneumothorax and hydrothorax in rare instances. Splashing, gurgling, and similar sounds are occasionally heard over the lower portion of the left chest.

Roentgen observations—Roentgen study is of utmost importance in esophageal orifice hernia because it is the only means of reaching a diagnosis before operation. The technic of the examination is difficult and must be done with great accuracy and care. The presence of a hernia is detected occasionally on the plain roentgenogram or roentgenoscopically with the patient in the erect position.

If the sac is filled with air, the gas bubble is visualized above the diaphragm. The herniated portion of the stomach may contain both air and liquid, in which case the fluid level with gas above gives a clue to the diagnosis. Even on ingestion of the opaque meal, fluoroscopic studies with the patient standing rarely demonstrate a hernia. If the roentgen studies are carried out in this position only, as is done in some clinics, many hernias will be overlooked.



Fig. 2. Large esophageal hiatus hernia with entire cardia and portion of the media of the stomach lying above the level of the diaphragm.

The hernia is most apt to be visualized with the patient lying on the fluoroscopic table and the stomach well filled with the opaque mixture. There is no single position in which it is possible to bring the lesion into view in every instance. It is essential to observe the patient in the prone, supine, and oblique positions. Deep inhalation and exhalation should be advised during the time of observa-

tion. Pressure on the abdomen with the gloved hand is important to force the gastric contents into the cardia. Lowering the head of the table or placing a pillow underneath the buttocks is an important maneuver.

Roentgenograms are difficult to obtain and even with the most careful technic frequently fail to show the hernia because the lesion is usually relatively small and is overlapped by the diaphragm, the cardiac shadow, the spine, and, in females, the breasts. Numerous films in different positions are necessary. In several instances, the hernia has been visualized fluoroscopically but could not be demonstrated on the roentgenograms. The most satisfactory way to overcome this difficulty is to determine the best position for demonstrating the lesion with the fluoroscope and then to replace the fluoroscopic screen with a film and make the exposure with the tube that was used during fluoroscopy. Serial roentgenograms may be of great value.

After the ingestion of the barium meal, the herniated portion of the stomach is seen as a round or ovoid shadow lying just above the diaphragm in the region of the lower end of the esophagus. The hernia is usually near or in the median line and projects more to the right than does the lesser curvature. As a rule, there is a direct connection between the opaque medium in the upper portion of the cardia and the barium in the hernia, the two being united by an isthmus at the level of the esophageal hiatus. In some instances, the lesion lies entirely above the diaphragm and does not appear to connect directly with the stomach.



Fig. 3. Hiatus hernia with practically the entire stomach above the level of the diaphragm and only a small portion of the prepyloric area and the pylorus lying in the abdomen. The duodenum is displaced markedly upward; the duodenal loop is uncoiled and abnormal in position. There is marked rotation of the stomach; the esophagus appears to enter the stomach posteriorly.

The size and shape of the hernia may vary with the degree of filling, the patient's position, the phase of respiration, and the amount of intraabdominal tension. When the herniated portion of the stomach is completely filled with barium, it is seen as a smooth, sharply defined shadow of uniform density throughout. If it is only partly filled with the opaque mixture and contains air also, the gas collects in the upper portion, giving a mottled shadow. With the patient standing,

a fluid level with a horizontal upper border is seen. If the sac contains only a little barium, the rugae of the stomach are visualized. This is a very important observation as it proves conclusively that the shadow lying above the diaphragm actually is a portion of the stomach.

The lesion may reduce itself during the roentgen examination, especially when the patient turns or changes from a lying to a standing position. While reduction and consequent disappearance of the hernia increase the difficulties of diagnosis from the roentgenologic point of view, this phenomenon is very important clinically as it proves the absence of adhesions and that there is little or no danger of incarceration.

The relation of the esophagus to the hernia should be studied carefully. This is best accomplished by giving the patient a few additional swallows of the opaque mixture after the hernia has been visualized. Films may be made while the liquid is being swallowed or fluoroscopic studies may be carried out. Usually, the lower esophagus is seen to be normal. Rarely, it may be tortuous, the tortuosity disappearing when the hernia reduces itself.

The hernia may be to the left, right, front, or back of the esophagus, in some cases partially surrounding the esophagus. The stomach usually rises high, so that the cardia is in close contact with the diaphragm. In several cases, the stomach appears to be more to the right than normally. The cardia may be smaller and much less rounded than usual.



Fig. 4. Hiatus hernia with peptic ulcer in herniated segment of the stomach. Lower end of the esophagus terminates well above the level of the diaphragm and there is a small esophageal hiatus hernia. An ulcer crater formation is present in the herniated segment of the stomach (*arrow*).

Since the manifestations of hiatus hernia are so variable and inconstant that clinical diagnosis is usually impossible, roentgen demonstration is necessary. In some patients routine x-ray studies of the esophagus and stomach suffice to outline the hernia. In most cases, however, the lesion is very small or for other reasons difficult to visualize. In these cases it may require the utmost care on the part of the roentgenologist to prove the existence of the hernia.

In searching for an esophageal hiatus hernia, the roentgen examination should always begin with fluoroscopic observations without the opaque meal. A careful and thorough search is made for a gas-containing shadow lying at or slightly above the level of the diaphragm.

This is of particular importance, since in some cases the hernia reduces itself and disappears on ingestion of the opaque meal.

Observations are first made with the patient breathing quietly, then in full inspiration and forced expiration. The frontal and oblique projections are used in the erect, prone, and supine positions. Occasionally both gas and fluid are in the herniated portion of the stomach, presenting a horizontal fluid level with an air bubble above the liquid.

When the opaque meal is administered, the fluoroscopic observations are best begun with the patient in the erect position. Each mouthful is carefully observed in its passage through the esophagus. The lower end of the esophagus may be tortuous and moderately dilated. In patients with congenital shortening of the esophagus, the cardioesophageal junction is seen to be above the level of the diaphragm. The hernia in many cases fills partially or completely with the patient erect. However, the great majority of hernias are not demonstrable in this position.

Differential diagnosis—From the clinical standpoint, the common conditions to be considered in differential diagnosis are carcinoma of the stomach, peptic ulcer, gallbladder disease, carcinoma of the lower esophagus, and angina. Each of these conditions usually has its typical history and clinical evidence. It is in atypical or borderline cases that diagnosis becomes difficult and the possibility of esophageal orifice hernia should be considered. If this lesion is borne in mind, both the clinician and the roentgenologist will diagnose it with greater frequency.



Fig. 5. Large hiatus hernia, congenitally short esophagus, esophagitis. The esophagus terminates above the level of the diaphragm (*black arrow*). The lower end of the esophagus is narrowed, obviously irregular in outline, and slightly dilated. A large esophageal hiatus hernia, practically the entire cardia of the stomach, lies above the level of the diaphragm (*white arrow*). Exploratory operation revealed a hiatus hernia and esophagitis, no evidence of carcinoma of the esophagus or stomach.

From the roentgen point of view, the following conditions must be considered in differential diagnosis: diaphragmatic hernia of other types, diverticulum of the lower esophagus, cardiospasm, diverticulum of the stomach, cardioeso-

phageal relaxation, and eventration.

Diaphragmatic hernias of other than the esophageal orifice type may be the result of congenital abnormality, severe trauma to the abdomen, gunshot injury, or stab wound. These hernias may involve any part of the diaphragm. In esophageal orifice hernia, only the stomach passes into the thorax. Portions of the small intestine, colon, stomach, and other abdominal organs may be involved in the other types of diaphragmatic hernia. The relation of the esophagus to the lesion may be demonstrated roentgenologically by the opaque meal, proving conclusively whether the lesion involves the esophageal orifice or some other portion of the diaphragm.

Diverticulum of the esophagus is attached to the esophagus and always lies in direct contact with it. The shadow of a hernia through the esophageal orifice can be shown to be connected with the stomach and may be differentiated from the esophageal outline as the patient is studied in the various positions fluoroscopically. A diverticulum fills directly from the esophagus, while a hernia, as a rule, fills from the stomach. The former is usually well above the diaphragm and is best seen with the patient erect; the latter lies in direct contact with the diaphragm and is seldom visualized except in the recumbent position.

Diverticulum of the stomach is a projection from the gastric lumen and is below the level of the diaphragm. Very frequently some of the barium mixture is retained in the diverticulum after the main mass of barium has passed out of the stomach; an esophageal orifice hernia empties itself during the emptying of the stomach. A diverti-

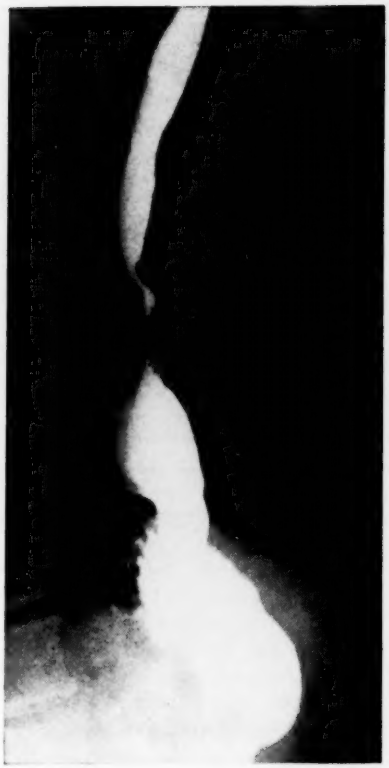


Fig. 6. Congenitally short esophagus with esophagitis and hiatus hernia. The lower end of the esophagus terminates at the level of the ninth dorsal vertebra and shows a narrowing and irregularity of outline over an area measuring about 2 cm. in length. The entire cardia of the stomach lies in the thoracic cavity. Esophagoscopy revealed esophagitis of the lower segment of the esophagus, no evidence of carcinoma or ulcer formation.

culum is best visualized with the patient erect, while an esophageal orifice hernia is rarely seen in this position.

Cardiospasm is an obstruction of the lower end of the esophagus, with dilatation of the esophagus of varying degree, and should not cause confusion. In cardioesophageal relaxation, the opaque meal flows freely into the stomach and then runs back into the esophagus when the patient is recumbent. There is no circumscribed shadow above the diaphragm as in esophageal orifice hernia, and fluoroscopic studies make the differential diagnosis easy.

Eventration is an elevation of the diaphragm with a resultant high position of the stomach, splenic flexure, and small bowel. The differentiation between this condition and esophageal orifice hernia depends on the visualization of the diaphragm and the demonstration that in eventration the stomach lies below the elevated diaphragm. This is usually possible after the administration of a barium sulfate meal. If this method fails, the diaphragm may be visualized by administering a compound effervescing powder to distend the stomach with gas. Fluoroscopic observations with the patient in the erect position after the stomach has been filled with gas or the opaque meal have always enabled us to demonstrate the position of the diaphragm and thus determine whether we were dealing with eventration or an orifice type of hernia.

Treatment—The medical treatment of esophageal orifice hernia is symptomatic and consists mainly of dietetic and preventive measures. Thorough mastication, slow eating, and small meals are advisable. Fluid in considerable amounts may be taken with the meals. The patient should not lie down after eating. If distress comes on during or soon after eating, walking about for several moments or a hot drink usually gives relief. The avoidance of straining, tight bands about the abdomen, and other causes of increased intraabdominal pressure is important.

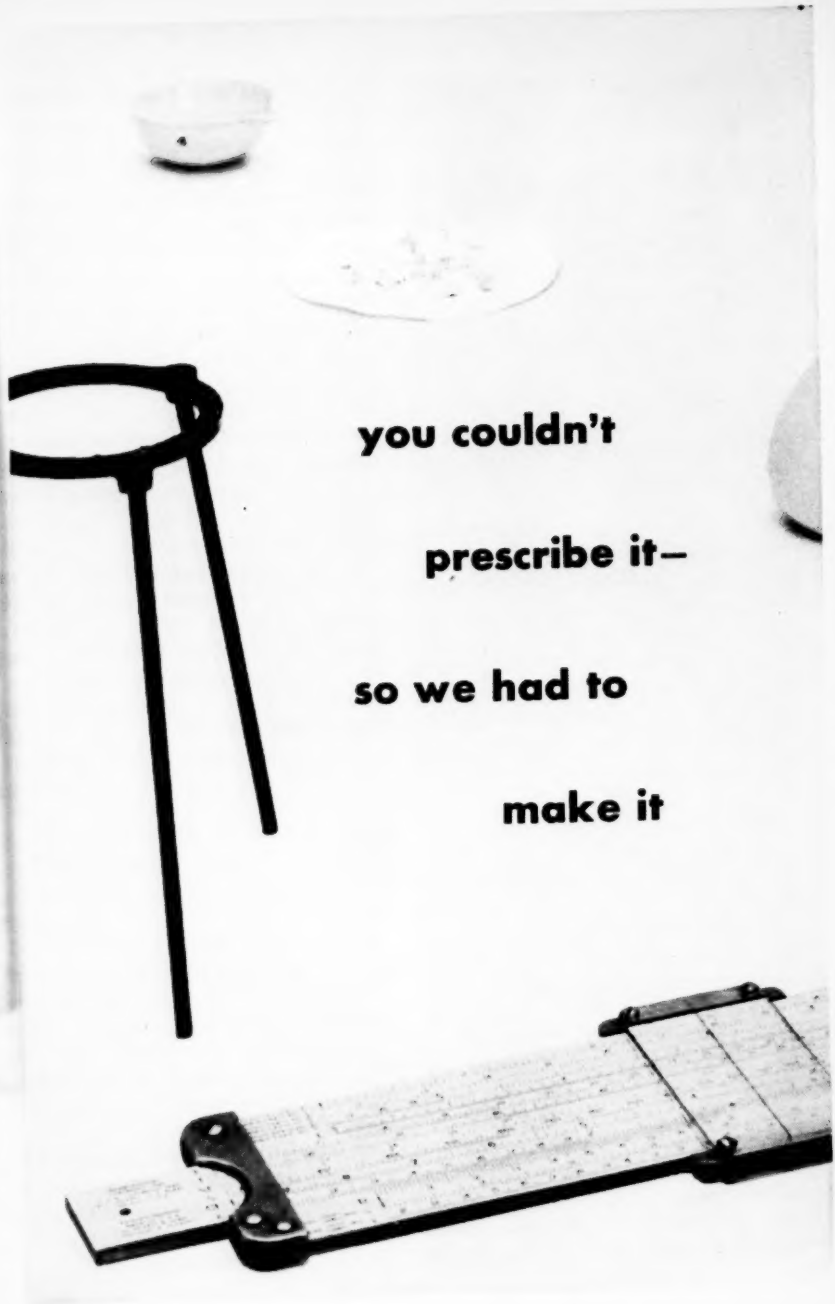
Hiatus hernia may present no symptoms and therefore require no treatment. All observers are agreed that treatment is essentially medical, especially in patients with small lesions. A bland, high-vitamin diet, divided into 4 or 6 feedings, is desirable. Food should not be given before bedtime. Assumption of the upright position after eating or for a few minutes during the course of the meal is often helpful.

In many cases sleeping at an angle of 45° has relieved distressing night symptoms. Various alkalies and antispasmodic drugs are frequently useful. It is essential that any coexisting disease be eliminated if possible. Weight loss may help.

The treatment of underlying or associated emotional factors is also of the utmost importance. Recently, Levy and Duggan have emphasized the psychic factor in the management of such cases.

Surgery is indicated when medical measures fail to give relief, especially in patients with intractable pain or hemorrhagic tendencies. A

(Concluded on page 132)

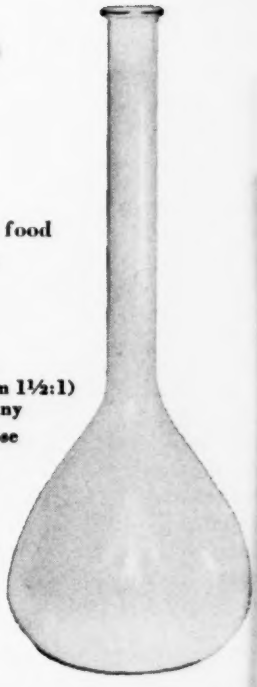

you couldn't
prescribe it–
so we had to
make it

Doctors have always wanted a formula for infant feeding that would be as close to human milk as nutritional science could provide.

The problem was immense; the requirements were rigid; the need was great. Borden took up the challenge, and after years of research and many trials and clinical tests the goal was accomplished. BREMIL was made available to the profession.

BREMIL is the first and, to date, the *only* infant food to achieve *all* of these prescription requirements:

- . . . conforms to the fatty acid pattern of human milk
- . . . conforms to the amino acid pattern of human milk
- . . . has a calcium-phosphorus ratio (guaranteed minimum 1½:1) adjusted to the pattern of human milk to prevent tetany
- . . . supplies the same carbohydrate as human milk– lactose
- . . . is vitamin-adjusted for standards of infant nutrition
- . . . offers a human milk size particle curd
- . . . is well-tolerated, digested, assimilated



Clinical reference data and samples on request.
Now in drug stores in 1 lb. cans

Bremil®

powdered infant food

Approximates the milk of the mother

Prescription Products Division,

The **Borden** Company, *350 Madison Ave., New York 17*

large measure of relief may result from interruption of the left phrenic nerve. Surgical repair offers complete cure, and the technic of the procedure has been well standardized. The operation is difficult and should be undertaken only after careful consideration of the patient's general condition.

The abdominal approach is usually preferable, although the thoracic often proves more satisfactory. A large incision is necessary, adequate exposure being the first requisite. The hernia is reduced completely and the esophageal opening of the diaphragm sutured to normal size.

As the difficulties of operation are greatly increased by the respiratory movements of the diaphragm, phrenicotomy may be performed on the left side as a preliminary step. In patients who cannot undergo the extensive abdominal operation necessary for cure, phrenicotomy alone may give the patient symptomatic relief.

Fortunately, complaints are mild in the great majority of cases and surgical intervention is rarely necessary. Surgical intervention should be reserved for cases in which the symptoms are due directly to the hernia and are not relieved by conservative therapy.

Inasmuch as the clinical picture of hiatus hernia is similar to that of other disease in the chest or abdomen, one must be entirely certain of the state of affairs before assuming that hiatus hernia is the only cause of existing trouble. Recently, we have seen a case of hiatus hernia with severe gastrointestinal bleeding in which the first gastrointestinal roentgen examination revealed no disease other than the hernia. A repeated x-ray study, however, revealed a deep duodenal ulcer in addition to the hernia.

The problem becomes all the more difficult when one tries to explain attacks of chest pain on this basis. Certainly a patient may have both coronary artery disease and a hiatus hernia. Only after very careful study and observation, therefore, is a single diagnosis tenable. The possibility of hiatus hernia should never be forgotten, and its presence never overlooked. But, in one's enthusiasm at finding an abnormality that can be demonstrated, one should not neglect the fact that other disease may be present, the existence of which can be demonstrated only by continued study.



You don't make an investment before seeking the best advice you can get.

If you are thinking of investing in an x-ray machine the best advice you can get is that of your radiologist. He can tell you the type and make of machine that will best answer the requirements of your particular practice.

Why don't you ask him?

Picker X-Ray

Medical Forum

Discussion of articles published in MODERN MEDICINE *is always welcome. Address all communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

Oxycel and Bag Catheter in Prostatectomy*

QUESTION: Does oxycel replace gauze after prostatectomy?

Comment invited from
Abel J. Leader, M.D.
M. Leopold Brodny, M.D.
Russell B. Roth, M.D.
Reed M. Nesbit, M.D.
Zachary R. Cottler, M.D.
Herbert R. Kenyon, M.D.
Lawrence P. Thackston, M.D.

► TO THE EDITORS: While Drs. William J. Baker and Edwin C. Graf have demonstrated the superiority of oxycel over gauze packing, I believe that retropubic prostatectomy obviates the use of both.

My experiences with gauze packing after suprapubic prostatectomy have paralleled those of the essayists. Its use occasions much postoperative distress, and its removal, unless done under anesthesia, is a barbaric and shocking procedure.

My experiences with oxycel for hemostasis have not been happy when hemostasis was most needed. Almost invariably the oxycel has become an amorphous, tarry mass before it could be drawn into the prostatic fossa.

I have almost completely abandoned suprapubic prostatectomy because of the difficulties in obtaining adequate hemostasis. The retropubic approach offers what the suprapubic does not: complete visualization of the entire prostatic fossa and the bladder neck. Active arterial bleeders can be seen and ligated easily and smaller vessels can be occluded by spot fulguration. Bleeding is controlled at the operating table.

The smooth postoperative course following retropubic prostatectomy is in marked contrast to that following suprapubic prostatectomy. Bladder and rectal spasms, due frequently to a distended balloon, packing, Pilcher bags, traction devices, and the like, are almost never seen after using retropubic prostatectomy.

Dr. Baker's average of fifteen and one-half days after surgery before the suprapubic sinus was dry and the patient was voiding normally is worthy of comment. It has been my experience that, with but few exceptions, the wound is healed per primam and the patient is voiding normally by the fifth or sixth day. The average postoperative stay following retropubic prostatectomy is eight days.

ABEL J. LEADER, M.D.
Houston

*MODERN MEDICINE, Mar. 15, 1952, p. 105.

Freedom

from

MALODOROUS

Vaginal

DISCHARGES

Assured



Chloro-Sul *vaginal suppositories*

In Vaginal and Cervical Infections, Post-Partum and Gynecological Surgery

Each Suppository Contains:

Chlorophyll (Oil Soluble)	0.24 gr.
Sulfadiazine	2.0 grs.
Sulfamethazine	2.0 grs.
Sulfacetamide	2.0 grs.
Lactic Acid	0.1 gr.
Methyl Parahydroxybenzoate	0.1 gr.

Literature on Request.

The Columbus Pharmacal Co., Columbus 15, Ohio

► TO THE EDITORS: It has been my practice not to use either gauze or oxycel after prostatectomy. I have had excellent results in the control of bleeding by the use of a bag which I have previously described (*J. Urol.* 60:119-121, 1948).

The big advantage of this bag is that tension on the penile catheter produces pressure on the vesical portion of the bag and distributes the compression throughout the prostatic cavity. Undue tension on the Pilcher bag or the Foley catheter can cause pressure necrosis of the external sphincter. The few cases in which I have used gauze packing developed an increased amount of scar tissue and, on postoperative urethrographic study, had failed to involute.

M. LEOPOLD BRODNY, M.D.
Boston

► TO THE EDITORS: I believe it was Dr. Lloyd Stockwell who first reminded me that it makes considerable sense to put a great deal of faith in the natural mechanisms of clot formation and clot retraction in dealing with postprostatectomy bleeding. The healing process upon which every surgeon must rely is only hindered by the presence of foreign bodies or by pressure.

The ideal open prostatic enucleation is attended by careful hemostasis under direct vision and is followed by simple Robinson catheter drainage and tight closure of the bladder. Postoperative irrigation is avoided as far as possible so that normal clotting will not be disturbed. Under such circumstances, healing is prompt and infection is minimal, and it is not at all remarkable to have the patient ready for discharge from the hospital on the eighth or ninth postoperative day. When bleeding control is not adequate to allow for such management, I use gelfoam or oxycel, held in place by a bag catheter, and also allow for counter drainage, using a small bag catheter through a high stab cystostomy. This is usually removed in twenty-four hours.

Oxidized cellulose gauze will occasionally fail to dissolve, even in spite of sodium bicarbonate irrigations, and is not the ideal material. Gelfoam has given less trouble in my experience. It has now been nine years since I have resorted to gauze packing or a Pilcher or Hegner bag for hemostasis.

RUSSELL B. ROTH, M.D.
Erie, Pa.

► TO THE EDITORS: It is undoubtedly true that many surgeons who perform enucleative prostatectomy find a need for packing the fossa in order to obtain hemostasis and some who follow this practice have found that oxycel is valuable because it is supposed to be absorbable and therefore does not have to be removed as does a gauze pack.

My own experience in the use of oxycel is very limited; I have used it on very few occasions and have not encountered any difficulties with it. But many surgeons have reported that oxycel, when left in the prostatic fossa following prostatectomy, has failed to absorb and has

(Continued on page 140)



New **Steroid-Vitamin-Mineral**

Tablet

COVISTEN

Your patients—young or aged—who need steroidal-nutritional support will have it in a single tablet when you prescribe Covisten. For the young, Covisten will prove invaluable as an anabolic tool—for the aged, an excellent way to supplement waning gonadal function and diminishing intake or utilization of foodstuffs. Covisten supplies Stenediol® (methyl androstenediol—the non-virilizing androgen which imparts the 'lift' unique with steroids) plus vitamins plus minerals in balanced combination.

Each tablet supplies:

Stenediol (methyl androstenediol)	5 mg.
Ascorbic acid	50 mg.
Thiamine HCl	2 mg.
Riboflavin	3 mg.
Pyridoxine HCl	1 mg.
Vitamin B_{12}	2.5 mcg.
Niacinamide	20 mg.
Folic Acid	0.5 mg.
Vitamin A	5000 U.S.P. Units
Vitamin D_3	500 U.S.P. Units
Ferrous Gluconate	75 mg.
Dibasic Calcium Phosphate	200 mg.
Manganese Hypophosphite	0.5 mg.
Dibasic Magnesium Phosphate	20 mg.

Bottles of 100 & 1000

Organon INC. • ORANGE, N. J.

T.M.—Covisten



Reduction of high or rising blood pressure has been achieved in many patients with orally administered Methium.

A ganglionic blocking agent, Methium (hexamethonium chloride) inhibits autonomic nerve impulses that produce vasoconstriction.

Best and most predictable results occur in "benign" essential arterial hypertension. However, Methium is reported to alter materially the course of malignant hypertension and is worthy of trial even in this severe state. Good results are also reported in cases where other therapy was fruitless.

Properly used, Methium has repeatedly demonstrated its ability

1. to reduce blood pressure to more normal levels
2. to relieve hypertensive symptoms
3. to provide symptomatic relief in some patients whose pressure is not lowered.

The fall in pressure brings relief of such symptoms as headache, dizziness, and fatigue in the usual case. In others, where pressure does not respond to therapy, symptomatic improvement may nonetheless be noted.

Methium is a potent drug and should be used with great caution when complications exist — impaired renal function, coronary artery disease and existing or threatened cerebral vascular accidents. Complete instructions for prescribing Methium are available on written request or from your Chilcott detail man and should be consulted before using the drug.

CHILCOTT *Laboratories, Inc.* MORRIS PLAINS, NEW JERSEY

FORMERLY THE MALTINE COMPANY

Methium has received Council acceptance



complicated the convalescence by necessitating operative removal of this substance.

Recently, while attending a medical meeting in Los Angeles, I was informed by a urologic surgeon that he had found it necessary the day before to reopen a suprapubic incision for the purpose of removing an oxycel gauze pack which he had employed following suprapubic prostatectomy. The patient, after the urethral catheter of the Foley balloon type was removed, had been able to urinate; a few days later, the surgeon, in attempting to introduce the sound, encountered a solid barrier of tissue which he was unable to dislodge with the metal instrument. He found it necessary to reopen the suprapubic wound under anesthesia and remove the pack; he stated that he would never again employ oxycel gauze for the obvious reason that it does not absorb as it is supposed to.

It is my belief that most enucleative prostatectomies, either by the perineal, retropubic, or suprapubic route, if performed by modern technic, can be done without packing the prostatic fossa. Even suprapubic prostatectomy carried out with a low transverse incision through the bladder permits ready visualization of the entire prostatic fossa and bladder neck in such a way that satisfactory hemostatic sutures can be applied. Most surgeons who use that technic close the bladder and then leave it on indwelling catheter drainage, occasionally suprapubic drainage through a stab wound, and expect to have no greater amount of bleeding than is encountered after either retropubic or perineal prostatectomy. My own view is that packing of the prostatic fossa after enucleative prostatectomy is rarely if ever necessary with present surgical technics.

REED M. NESBIT, M.D.
Ann Arbor

► TO THE EDITORS: In the November 1948 issue of the *Urological and Cutaneous Review*, Dr. Sidney Immergut and I described our method of employing oxycel gauze sewn about gauze packing in the control of postprostatectomy hemorrhage. We also stated that we had employed oxycel gauze wrapped about the balloon of a Foley catheter, but had discarded this procedure for three reasons: [1] The control of bleeding was inadequate, transfusions being a necessity. [2] The incidence of postoperative incontinence markedly increased. [3] Discharge of oxycel particles persisted for a long time postoperatively.

We agree with Drs. Baker and Graf that the use of bare gauze packing in the prostatic fossa should be completely discarded. However, we find the method of oxycel-covered packing, or oxycel tampon as we describe it, to be most satisfactory for hemostasis, early healing, and lowered incidence of complications after operation. Blood transfusions are now the exception. The majority of our colleagues have adopted this method and are highly satisfied with the results in suprapubic prostatectomy.

At the present time we remove

NEWS ABOUT A BAUER & BLACK PRODUCT

New way to sweeten a "bitter pill" -elastic stockings of NYLON

Now from **BAUER & BLACK**—*a NYLON elastic stocking that gives firm support and will not discolor!*

Frequently a patient will resist when you suggest she wear elastic stockings. But these new nylon models by Bauer & Black greatly reduce that resistance. They are far less conspicuous, are cooler, fit more smoothly. They are easier to wash, wear longer and have open toes for foot freedom and comfort. These are the only nylon elastic stockings that will not discolor—and they come in a light, glamorous shade.

Moreover, you can prescribe Bauer & Black nylon elastic stockings with complete confidence. They provide the firm, healthful support you want your patients to have.

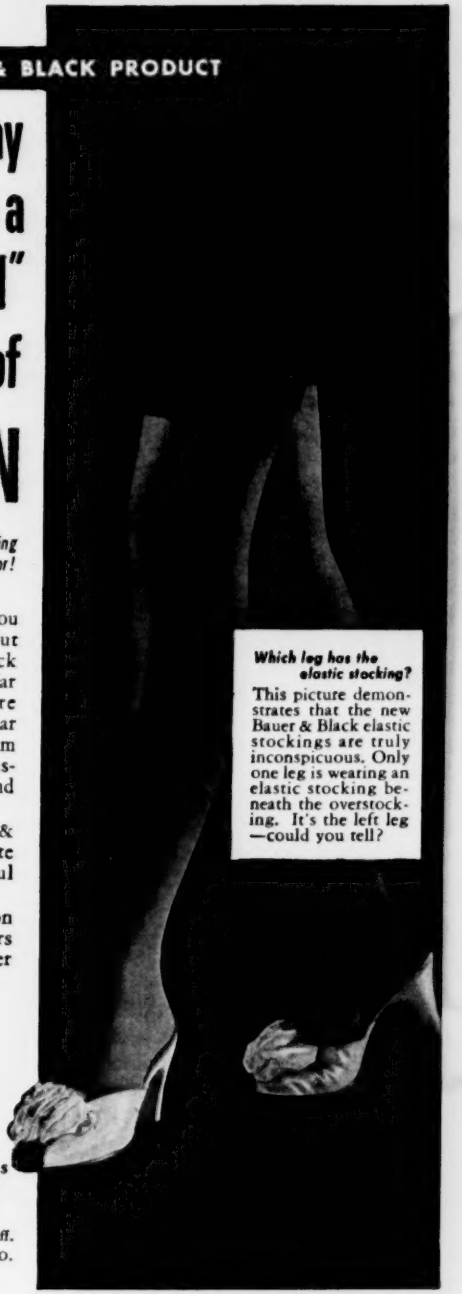
This new development is one more reason why more women wear and more doctors prescribe Bauer & Black than any other elastic stocking.

BAUER & BLACK

ELASTIC STOCKINGS

Other famous Bauer & Black Elastic Supports
BRACER Supporter Belts, TENSOR* Elastic Bandages, Abdominal Belts, Suspensories, Anklets, Knee Caps, Athletic Supporters.*
*Reg. U.S. Pat. Off.

Bauer & Black, Division of The Kendall Co.
309 W. Jackson Blvd., Chicago 6, Ill.



Which leg has the elastic stocking?

This picture demonstrates that the new Bauer & Black elastic stockings are truly inconspicuous. Only one leg is wearing an elastic stocking beneath the overstocking. It's the left leg —could you tell?

the packing in forty-eight hours and practically all the oxycel is completely removed with the gauze. A hypodermic of 1 gr. of codeine is given fifteen to twenty minutes before the removal of the packing and no anesthesia is required. On the fifth or sixth postoperative day, if the patient is not already voiding and practically dry, a Foley catheter is introduced through the urethra and left for two to three days. The majority of our patients are dry, voiding satisfactorily, and ready to be discharged on the tenth or eleventh postoperative day.

The one decided disadvantage of our method is the occurrence of bladder spasms while the packing is in place. This is controlled fairly well by the liberal use of Demerol, Dilaudid, or Pantopon.

At the present time, on the service of Dr. Louis Baretz at the Jewish Hospital of Brooklyn, we are evaluating all prostates operated upon during the current year. They will be classified as to type, blood loss, complications, morbidity, and so on. We hope to have some interesting facts to present in the near future.

ZACHARY R. COTTLER, M.D.
Brooklyn

► TO THE EDITORS: Considering the modalities currently available for the control of hemorrhage immediately following prostatectomy, it seems unnecessary to restrict the choice to gauze or oxycel.

My personal experiences with oxycel in any form, when used in the prostatic fossa, have left much to be desired. In addition to the local tissue reaction, there is usually an increase in body temperature not observed when other methods are used. I have seen a case in which a soft calculus, as large as a hen's egg, formed on a mass of retained oxycel and others in which the same condition might have developed if allowed to progress.

In my hands, gelfoam together with topical thrombin has demonstrated distinct superiority. Traction is hardly ever necessary. The gelfoam is used on a balloon catheter, fixed so that it lies in the fossa without traction. Neither oxycel nor gelfoam depends on pressure for hemostasis. In my opinion, the distensible portion of the catheter should remain in the bladder and, as a rule, a 30-cc. balloon is sufficiently large. A small angle drain is used suprapubically and removed as early as possible, usually within twenty-four to forty-eight hours.

The balloon of the urethral catheter is partially deflated on the first postoperative day and the catheter then remains in situ until the suprapubic wound is healed. The prevesical drain and suprapubic tube are ordinarily withdrawn on the second day. The retention of a suprapubic tube retards healing. This is usually accomplished in ten to fourteen days. Gauze, Pilcher bags, or large Foley catheters with traction should be reserved for cases in which immediate hemorrhage is massive and cannot be controlled otherwise.

Drs. Baker and Graf are quite correct in stating that routine irrigation is rarely essential. It is erroneous to consider that inconti-



effective in 6 out of 7 cases of functional vomiting[1] . . . reduces gastrointestinal smooth muscle contractions physiologically . . . contains no antihistaminics, barbiturates, or other drugs . . . also useful in nausea of pregnancy, and for drug- or anesthetic-induced vomiting

1. Bradley, J. E., et al.: J. Pediat. 38:41, 1951; idem: Amer. Acad. Pediat., meeting Oct. 16, 1951.

IMPORTANT: **EMETROL** is stabilized at an optimal physiologic pH level. Dilution would upset this careful balance. For this reason, **EMETROL** is always taken straight, and no fluids of any kind are allowed for at least 15 minutes after administration.

Supplied:
In bottles of 3 fl.oz. and 16 fl. oz., at pharmacies everywhere

Kinney

write for complete literature

KINNEY & COMPANY • COLUMBUS • INDIANA

7IAS2

nence is usually dependent upon traction or other factors used to enhance hemostasis. This complication is more often the result of improper enucleation and operative injury to the external sphincter. However, contributory elements such as excessive tamponade of the prostate cavity or undue traction should certainly be avoided.

HERBERT R. KENYON, M.D.
New York City

► TO THE EDITORS: Oxycel is a very valuable substance in urologic surgery. However, I believe from experience in a large volume of retropubic prostatectomies that the operation of choice for most prostatic adenomas is either a retropubic enucleation or a suprapubic enucleation with complete closure. We have also found that our patients heal more rapidly and have less trouble postoperatively when a plain double balloon bag catheter devised by the author is used (*J. Urol.* 63:915-917, 1950).

A considerable number of prostatectomies were done using a Foley bag in the bladder and packing the entire prostatic fossa with oxycel; at a later date, this technic was modified to include placing a distended balloon covered with oxycel in the fossa. Both the technic of packing the fossa with oxycel and that of including a layer of oxycel on a balloon catheter were abandoned due to complications arising from the solution of the oxycel.

For the past series of about 300 cases, only a plain rubber double balloon bag catheter has been used. The vesical bag is left distended until it is removed and the patient voids. The prostatic fossa bag is distended for four hours postoperatively and then deflated.

Most of the catheters are removed on the fifth or sixth day and practically all the patients void normally without difficulty. Less than 5% have had urinary leakage and all of these patients had extremely friable capsules.

Our chief resident, after three years, has never been called to control postoperative bleeding.

LAWRENCE P. THACKSTON, M.D.
Orangeburg, S. C.

Coagulation Hematomas of the Placenta*

QUESTION: Are coagulation hematomas in any way responsible for erythroblastosis or toxemia of pregnancy?

Comment invited from
Joseph Grundorfer, M.D.
Benjamin S. Kline, M.D.
John M. Higgins, M.D.

► TO THE EDITORS: The excellent paper by Dr. Carl T. Javert and Clara Reiss on the origin and significance of red infarcts of the human placenta deserves much attention. This presentation can be considered another important step toward a better understanding of some of the complex problems of gestation like Rh isosensitization or toxemia of pregnancy.

Macroscopic intervillous coagulation hematoma appears to be a very fitting designation for this in-

*MODERN MEDICINE, June 1, 1952, p. 117.

The Makers of Bayer Aspirin Announce...

NEW *FLAVORED*

CHILDREN'S SIZE

BAYER ASPIRIN

The Best Tasting Aspirin You Can Prescribe.

2½ gr. 1⅛ gr. Grooved Tablets—Easily Halved.

The Flavor Remains Stable Down to the Last Tablet in the Bottle.

24 Tablet Bottle... 2½ gr. each 15¢



Professional samples of the new *Flavored* Children's Size Bayer Aspirin are now in the mail. Additional samples will gladly be supplied on request.

THE BAYER COMPANY DIVISION of Sterling Drug Inc.
1450 BROADWAY, NEW YORK 18, N. Y.

Children take it without the least bit of fuss



Swallowed Whole



Chewed Like Candy



Dissolved on Tongue



Or in Food Or Liquid

farct. Though the relationship of these hematomas to Rh isosensitization is presented as an etiologic factor and considerable statistical data support such a viewpoint, the question still remains open for discussion as to whether some of these hematomas are primarily due to an immune reaction between a maternal antibody and the fetal trophoblastic tissue, with consequent degeneration and spontaneous rupture of its cell layers. Infarcts seen in placentas of spontaneous abortions in early pregnancy, when increased vascular tension in the closed fetal circulation can hardly be anticipated, strongly suggest the possibility of such direct immune effect. From this viewpoint, experimental work still appears to be necessary to clarify the true origin of these hematomas and their role in erythroblastosis or toxemia of pregnancy.

Clinical observations have disclosed that the incidence of abortion in families with hemolytic disease is much lower than previously predicted by some investigators. There was never any report of a significant increase in the number of Rh-negative women who have had multiple abortions, although some workers have suggested that an abortion may be of a greater immunizing capacity than a full-term pregnancy.

It seems, therefore, appropriate to state that these placental coagulation hematomas can be held responsible for erythroblastosis just as abortion is considered to be a cause for Rh isosensitization.

JOSEPH GRUNDORFER, M.D.
Newark

► TO THE EDITORS: It is generally held that coagulation hematomas of the placenta are composed of clotted maternal blood deposited on and about fetal villi and trunks following degenerative changes of their trophoblastic lining. It is also generally held that the hematomas occur more frequently in cases of abnormal pregnancy than of normal gestation.

As early as 1908, Brindeau and Nattan-Larrier reported the occurrence of numerous small and large fetal hemorrhages in the placenta in a case of eclampsia. In places, gaps in the walls of the blood vessels and regional epithelial lining of villi were observed, with unquestionable communication of the fetal and maternal circulations. Fetal red blood cells continuing through such orifices into the maternal sinuses were readily recognized.

Javert, in 1942, reported the finding of gross hematomas in placentas of 8 of 34 cases of erythroblastosis neonatorum and nucleated fetal red blood cells in some of the hematomas.

Javert and Reiss report their findings of hematomas of the placenta in a large series of normal and abnormal pregnancies. The hematomas varied from 1 to 20 in number and from several millimeters to several centimeters in size. Cytologic findings on microscopic study of the placentas indicated rupture of trophoblastic endothelial junctions with the presence of fetal blood in regional intervillous spaces. Mixture of fetal and maternal bloods was further supported by statistical data. Hematomas were observed in



*"As a Life-saving Measure in Barbiturate Poisoning"**

•

use

SODUXIN

(Sodium Succinate — Brewer)

SODUXIN IS SAFE AND NON-TOXIC!

IN TREATING BARBITURATE POISONING . . .

An injectable solution of Sodium Succinate recently developed by Brewer research . . . SODUXIN has been found preferable to the convulsant drugs in the treatment of accidental or suicidal over-dosage of any of the barbiturates.

TO REDUCE WAKING-TIME . . .

SODUXIN has been used successfully to reduce the waking-time following prolonged barbiturate anesthesia . . . easily administered without special preparation of the patient, using same needle and venopuncture through which anesthetic was injected. SODUXIN is used immediately after the operative procedure is completed.

AVAILABLE: **10 cc. (3 Gm.) Ampuls 30%; box 6, 25**
20 cc. (6 Gm.) Ampuls 30%; box 6, 25

*1. Barrett, R. H., *The Analeptic Effect of Sodium Succinate on Barbiturate Depression in Man. Current Researches in Anesthesia and Analgesia.* 26: pages 74-81 and 105-113, March-April, May-June, 1947.

2. Greenfield, Irving, *Sodium Succinate as a Test of Circulatory Efficiency.* Ann. Int. Med. 32: 524-527, March 1950.

Brewer EST. 1852

For further information just mail your Rx blank marked 10S010

BREWER & COMPANY, INC. WORCESTER 8, MASSACHUSETTS U.S.A.

the placenta in about one-fourth of the cases of normal pregnancy and in about one-third of the cases of abnormal pregnancy. The incidence in cases of erythroblastosis was 79%; in cases of eclampsia it was 66%, and in preeclampsia 45%.

A study of 366 placentas reported by Kline in 1948, 1949, and 1951 included an examination of the placentas of 15 cases of transplacental erythrocytotoxic anemia (erythroblastosis fetalis). The pregnancy in these cases was of 5 to 10 lunar months' duration. In 1 of the placentas, several macroscopic hematomas, 1 to 4 mm. in diameter, were observed and, microscopically, nucleated fetal red blood cells were seen in places enmeshed in the fibrin. Microscopic examination of the 15 placentas showed, in all, numerous focal areas of necrosis and rupture of villi and trunks with adherent regional small hematomas. The breaks in the placental barrier were clearly visible in 2 cases in which the infants were born alive; intact nucleated fetal red blood cells were observed continuing from vessels within villi and trunks through ruptured surface areas into regional intervillous spaces.

Recent and old fetal hematomas were observed also in all the 213 cases in the last half of normal pregnancy studied.

The fetal hemorrhages into the intervillous spaces appeared to result from occlusion of peripheral blood vessels of villi and trunks by agglutinated red blood cells and fibrin and subsequent necrosis and rupture of vessel walls and regional fetal tissues.

The study further indicated that following each brief fetal hemorrhage of variable extent from villus or trunk, there is prompt regional clotting and the clots of fetal blood undergo various changes. Many eventually constitute the extensive fibrin deposition previously considered maternal in origin.

In the cases of erythroblastosis, numerous microscopic and occasional macroscopic hematomas indicate the sites of passage of incompatible fetal red blood cells into the maternal circulation and of maternal antibodies into the fetal circulation. It is probable that other pathologic processes in mother and fetus are likewise dependent upon the passage of injurious elements to each other through numerous microscopically visible breaks in the placental barrier in the last half of pregnancy.

BENJAMIN S. KLINE, M.D.
Cleveland

► TO THE EDITORS: I have no data to support the theory of placental coagulation hematomas as a cause of erythroblastosis and toxemia, but it is my sincere hope that the current investigation will be fruitful.

The emphasis which has been placed upon placental abnormalities by many present-day teachers seems to have valid basis. Years ago when I was doing obstetrics, I was often impressed by the association of an unhealthy-appearing placenta with some failure of the infant to be healthy.

JOHN M. HIGGINS, M.D.
Sayre, Pa.

Question:

WHAT MAKES Biphetacel SUPERIOR?

Answer:

THE *EXCLUSIVE* 1:3 L/D RATIO!

"IN CURBING APPETITE and causing weight loss, a combination of monobasic amphetamine phosphate containing a ratio of 1:3 of levo to dextro amphetamine (as found exclusively in Biphetacel) is more effective than the same amount of amphetamine contained in the racemic form where the ratio is 1:1 l/d . . ."*

Because of its exclusive 1:3 l/d ratio, Biphetacel curbs appetite more effectively, without nausea or nervousness, in both vagotonic or "sluggish" and sympathicotonic or "high strung" patients. In addition, it preserves an "enough-to-eat" feeling by decreasing gastric motility and prolonging emptying time of stomach, and assures normal elimination by supplying evenly distributed, non-nutritive, "no clump" bulk. Small dosage means low treatment cost.

Each Biphetacel tablet contains the preferred 1:3 l/d ratio as provided by Racemic Amphetamine Phosphate Monobasic 5 mg. and Dextro Amphetamine Phosphate Monobasic 5 mg.; Metropine® (methyl atropine nitrate, Strasenburgh) 1 mg., Sodium Carboxymethylcellulose 200 mg.

Dosage: 1 tablet ½ hour before meals, three times daily, for the vagotonic type. Increase this dose, if necessary, to achieve the desired clinical results. ½ tablet ½ hour before meals, three times daily, for one week for the sympathicotonic type. If no signs of intolerance develop, increase to 1 tablet. Supplied in bottles of 100 and 1000 scored tablets.

For literature and supply for initiating treatment, write Medical Service Department, R. J. Strasenburgh Co., Rochester 14, N. Y.

*Freed, S. C. and Mizel, M.—in press

PATIENTS RETAIN THEIR ZEST FOR FOOD . . . BUT THEY *"Eat Less and Like It!"*

Strasenburgh
FOUNDED IN 1886

Can mild deficiencies be ignored?.....

Recent investigation has shown that multiple mild deficiencies account for much physical and mental ill health. Adequate supplies of minerals and vitamins should, therefore, be a part of every plan for the treatment and prevention of chronic disease.

Nutritional supplementation with vitamins alone is often inadequate. In patients refractory to vitamin supplementation alone, the addition of minerals and trace elements usually produces the desired clinical response.

1. Examples of Biochemical Interrelationships Among Nutrients, in "Facts About Nutrition," edited by N.S. Moore. N.Y. State J. Med., (Nov. 15) 1948, p. 2473.



J. B. ROERIG AND COMPANY

"the interrelationships of various dietary essentials have ceased to be of interest solely as academic pursuits but are of immense value in preventive as well as clinical medicine."

10 Vitamins	Vitamin A	5,000 U.S.P. Units
	Vitamin D	500 U.S.P. Units
	Vitamin B_{12}	1 mcg.
	Thiamine Hydrochloride	3 mg.
	Riboflavin	3 mg.
	Pyridoxine Hydrochloride	0.5 mg.
	Niacinamide	25 mg.
	Ascorbic Acid	50 mg.
	Calcium Pantothenate	5 mg.
	Mixed Tocopherols (Type IV)	5 mg.
11 Minerals and Trace Elements	Calcium	213 mg.
	Cobalt	0.1 mg.
	Copper	1 mg.
	Iodine	0.15 mg.
	Iron	10 mg.
	Manganese	1 mg.
	Magnesium	6 mg.
	Molybdenum	0.2 mg.
	Phosphorus	165 mg.
	Potassium	5 mg.
	Zinc	1.2 mg.

All in One Capsule

terra

Available at all prescription pharmacies

536 LAKE SHORE DRIVE • CHICAGO 11, ILLINOIS

new!

for daytime tranquility

car-sed-ine

Carbromal with Scopolamine

A new, *non-barbiturate* formula for daytime use
To calm the tense and nervous patient

CAR-SED-INE fills a long-felt need for a non-hypnotic, non-narcotic sedative that can be safely prescribed for daytime sedation without dulling the senses or producing unwanted drowsiness.

CAR-SED-INE combines two drugs of established clinical efficacy and safety:

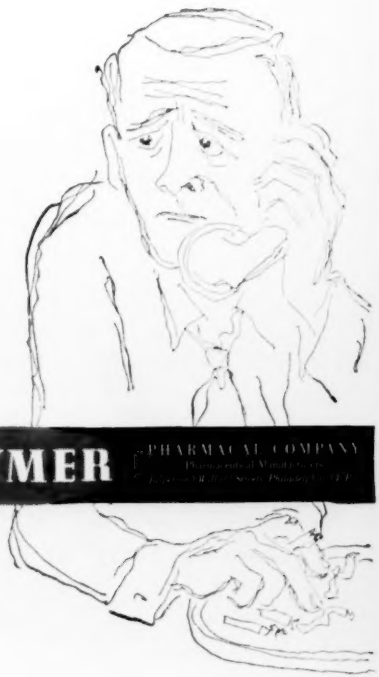
Carbromal "...a dependable sedative. It allays excitement and anxiety and tends to restore quietude and tranquility."[1]

Scopolamine "... certainly ... is effective in relieving the patient's emotional disturbances."[2]

FORMULA: each tablet contains Carbromal, 250 mg., and Scopolamine, HBr 0.1 mg.

DOSAGE: one tablet (in rare cases, two) two to four times daily, as required.

Supplied, on prescription only, in bottles of 100 and 1,000 tablets.



RAYMER PHARMACAL COMPANY

1. Krantz, J.C. & Carr, C.J.: Pharmacological Principles of Medical Practice, Williams & Wilkins Co., Baltimore, Md., 1951.

2. Goodman, L. & Gilman, A.: The Pharmacological Basis of Therapeutics. The Macmillan Co., New York City, 1941.

Serving the medical profession for nearly a third of a century.

Doctor to Doctor

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The October 1 winner is

C. L. Shalloway, M.D.
Hialeah, Fla.

Mail your caption to
The Cartoon Editor
Caption Contest
No. 2
MODERN MEDICINE
84 South 10th St.
Minneapolis 3, Minn.



"I told her that I didn't know about her boy friend, but the little rabbit seldom lied."

because of

IROCINE

means

REED & CARNRICK

Jersey City 6, N. J.

Diagnostix

Here are diagnostic challenges presented as they confront the consultant from the first clue to the pathologic report. Diagnosis from the Clue requires unusual acumen and luck; from Part II, perspicacity; from Part III, discernment.

Case MM-224

THE CLUE

ATTENDING M.D: We need a statement by one of the senior staff men because of a case which will probably come up for court hearing. The problem is a 34-year-old man in the next ward. I'd like you to see him. He is a litigious, slightly paranoid hypochondriac with a backache. All tests are negative, but the backache gets worse. He complains of everything from constipation to difficulty in swallowing.

VISITING M.D: You sound slightly annoyed. Suppose you fill in the history.

ATTENDING M.D: Three weeks ago the man sustained a blow in the back from a swinging door and had great pain. He was rushed here by ambulance from the business firm where he is a clerk. He had worked there only three weeks. The pain is in the lumbodorsal back region, with some radiation into the hip area on both sides. The complete roentgenograms of the back, all routine films of chest and legs, and usual laboratory studies are normal. Physical examination reveals nothing abnormal except the tenderness of the abdomen. Spinal fluid examination is unrevealing. The backache was severe enough on admission to the hospital for the patient to be given Demerol; he has had codeine ever since for relief.

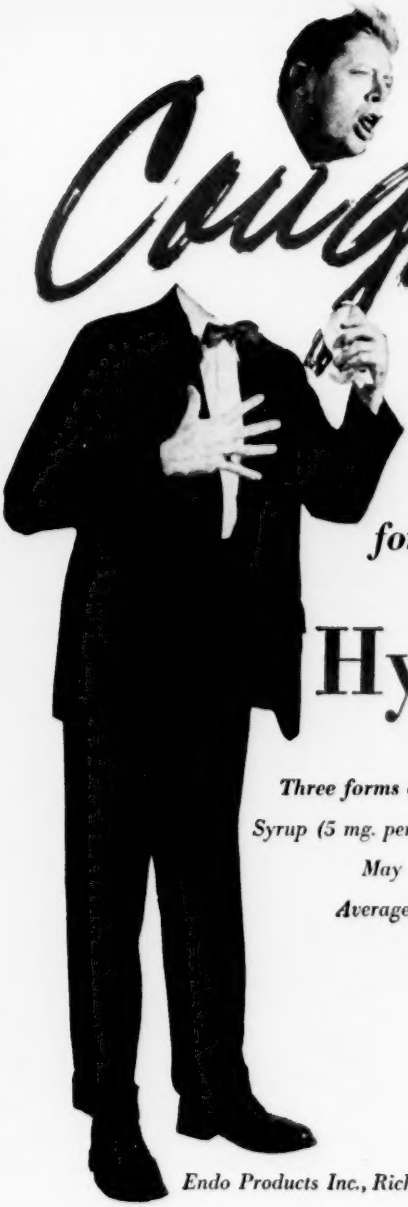


VISITING M.D: What about the past history and this talk about hypochondriasis?

ATTENDING M.D: The most important past history to me is that on the previous job the man worked six months, sustained a back injury, and had sick leave. I understand there has been some talk about a lawsuit.

VISITING M.D: Does he talk about a lawsuit?

ATTENDING M.D: No, but I suppose he doesn't want to appear overly anxious. Now, as for the numerous complaints—dysphagia, headaches, occasional ringing in ears, weakness in the legs, some choking and coughing spells, slight fever four to five days with no accountable explanation, and swelling and tenderness in the right knee yesterday,



Coughing your head off!

for effective cough therapy

Hycodan® BITARTRATE

(Dihydrocodeinone Bitartrate)

Three forms available: *Oral Tablets (5 mg. per tablet), Syrup (5 mg. per teaspoonful), Powder (for compounding).*

May be habit forming; narcotic blank required.

Average adult dose 5 mg. Literature on request.

Endo®

Endo Products Inc., Richmond Hill 18, N.Y.

gone today. He complains bitterly of one symptom after another. The pain in the abdomen is in the lower right quadrant, but radiates to the back about every other day. The whole description is vague. He has some relief with soda. He also has some burning on urination.

VISITING M.D: The gallbladder examination, I suppose, is negative?

ATTENDING M.D: Yes.

PART II

VISITING M.D: Give me any significant past history.

ATTENDING M.D: He had rheumatic heart disease with dyspnea ten years ago; no residuals. He complained of difficulty in swallowing three years ago. Roentgenograms of the esophagus showed some narrowing, so dilatations were done and the esophagus now appears normal. He was injured on the last job by backing into a filing cabinet. He has had, on four occasions, moderately severe abdominal pain and was given barbiturates but became much worse, complaining bitterly; he had what was described as a transient hysterical paralysis.

VISITING M.D: Hmmm.

ATTENDING M.D: At the age of 10 he had a convulsion, and one again at 20. The electroencephalogram at that time was normal, as were the results of neurologic examination. There has been no recurrence. His parents are living and well. Physical examination shows a few shotty nodes and slight tenderness in the right lower quadrant. Weakness of the dorsiflexors of the right foot was present for one day only.

PART III

VISITING M.D: *(In the hall again, after an hour's consultation and examination of patient)* My findings are essentially normal. The pains in the abdomen and back are quite out of keeping with the intensity of the injury, yet I can't help but feel that this condition is organic. The patient does not strike me as particularly contentious or paranoid nor as incapacitated by a neurosis. He had what he describes as a nervous breakdown four years ago, but that seems to have been a transient depression associated with an unhappy love affair. Even if he is neurotic, which he certainly is to some degree, I think something else is involved. He is an acute observer of his own person, calling attention to the changes in texture of his fingernails and hair and in color of skin, and says that his urine looks like fine old Bourbon on occasion.

PART IV

VISITING M.D: The clues are the worsening of the picture with barbiturates the last time he had abdominal pain, the neurotic symptoms of transient paralysis, and the convulsions. He tells me his brother has had convulsions and also speaks of his having dark urine occasionally. Really he has no desire to sue his former employer, nor his present one. This has been suggested to him

through the Menstrual Years of Life . . .

THE frequency with which the menstrual life of so many women is marred by functional aberrations that pass the borderline of physiologic limits, emphasizes the importance of an effective uterine tonic and regulator in the practicing physician's armamentarium.

In ERGOAPIOL (Smith) with SAVIN the action of all the alkaloids of ergot (prepared by hydro-alcoholic extraction) is synergistically enhanced by the presence of apiol and oil of savin. Its sustained tonic action on the uterus provides welcome relief by helping to induce local hyperemia, stimulating smooth, rhythmic uterine contractions and serving as a potent hemostatic agent to control excessive bleeding.

May we send you a copy of the booklet "Menstrual Disorders", available with our compliments to physicians on request.

MARTIN H. SMITH COMPANY
150 LAFAYETTE STREET, NEW YORK 13, N. Y.

ERGOAPIOL (SMITH) *with* SAVIN



INDICATIONS
Amenorrhea, dysmenorrhea, menorrhagia, metrorrhagia and in obstetrics.

DOSAGE
1-2 cap. 3-4 times daily

SUPPLIED
In ethical pkgs. of 20 cap.

The Preferred Uterine Tonic

by his family and a lawyer friend. We'd better get the indicated tests and see him in one week.

VISITING M.D: *(A week later)* The man has improved in the last week. I believe he can go home tomorrow. The improvement is apparently chiefly from withholding all medication. The porphyrins, uroporphyrins, and porphobilinogens were all found. The family history and the fact that you were able to obtain a urine specimen from the brother and find porphyrins, too, with pronounced fluorescence, confirms the diagnosis of porphyria. There are several classifications of porphyria but, for practical purposes, three types, congenital, acute, and chronic, may be considered. The congenital is inherited as a possible mendelian recessive and may appear early in life. There is great photosensitivity and cutaneous manifestations resembling hydroa aestivale in spring and summer, appearing frequently in childhood; the urine is Burgundy red with a brown tinge; the teeth and bones are discolored by uroporphyrin I. Acute porphyria is also inherited as a mendelian dominant but there is no photosensitivity or skin lesions. Great variation occurs in the clinical picture, but the symptoms are of three main types: [1] abdominal, with severe cramplike pain, vomiting, and constipation, often with slight fever, hypertension, and tachycardia, [2] nervous, with symmetric ascending myelitis, sometimes with neuritis, and [3] mental, any type of psychic disturbance. Urine during an attack is usually red, but may be light straw colored, darkening when exposed. In chronic porphyria there is slight photosensitivity, some skin lesions, abdominal pains, and symptoms. The chronic type resembles congenital porphyria in some respects and acute porphyria in others. The types of excess porphyrins excreted are as follows: with congenital, uroporphyrin I with coproporphyrin I excreted continuously; with acute, uroporphyrin III excreted in large amounts chiefly during attacks. This case cannot be perfectly classified but is a form of porphyria. Barbiturates should be avoided. Any obscure case with abdominal pain, neurologic symptoms, or photosensitivity should be investigated for porphyria.



On every count... *superior* vitamin supplements for infants

acceptability

The superior flavor of all three "Vi-Sols" assures patient acceptance. Mothers appreciate their convenience too.

dispersibility

With their clear, non-sticky texture, the "Vi-Sols" disperse instantly in fruit juice or water; mix readily with formula.

hypoallergenicity

Since all their vitamins are in synthetic form, the "Vi-Sols" are well tolerated even by allergic patients.

stability

Stable at room temperature, the "Vi-Sols" require no refrigeration. They may safely be autoclaved with the formula.

the versatile "Vi-Sols"

3 water-soluble vitamin preparations for drop dosage



POLY-VI-SOL
TRI-VI-SOL
CE-VI-SOL

Available in 15 and 50 cc. bottles, with calibrated droppers

	Vitamin A	Vitamin D	Ascorbic Acid	Thiamine	Riboflavin	Niacinamide
POLY-VI-SOL Each 0.6 cc. supplies	5000 Units	1000 Units	50 mg.	1 mg.	0.8 mg.	5 mg.
TRI-VI-SOL Each 0.6 cc. supplies	5000 Units	1000 Units	50 mg.			
CE-VI-SOL Each 0.5 cc. supplies			50 mg.			

MEAD JOHNSON & COMPANY, MEAD **EVANSVILLE 21, IND., U.S.A.**



at that age
when the taste
of things can be
so important...

The natural orange flavor of

Mulcin

puts a smile in the vitamin spoon!

Even at the ages when vitamin supplementation is often a problem, children *like Mulcin*. The refreshing orange flavor, smooth, non-sticky texture and appealing color of this vitamin emulsion win ready acceptance. And there's no unpleasant aroma or after-taste. Mulcin does not need refrigeration; even at room temperature, its potency is assured.



Available in 4 oz. and ***economical 1 pint bottles***

Each 5 cc. teaspoon of Mulcin supplies:

3000 units	Vitamin A
1000 units	Vitamin D
50 mg.	Ascorbic acid
1 mg.	Thiamine
1.2 mg.	Riboflavin
8 mg.	Niacinamide

MEAD

an Achievement in Pharmaceutical Elegance

MEAD JOHNSON & COMPANY EVANSVILLE 21, INDIANA, U. S. A.

BASIC SCIENCE *Briefs*

Oncology

Pleomorphism of Teratoma

Pluripotence of undifferentiated teratomatous cells from the ovary of a mouse has been demonstrated by transplantation and growth through nine generations. Dr. Elizabeth Fekete and Mary Ann Ferrigno of the Jackson Memorial Laboratory, Bar Harbor, Me., were unable to separate embryonic elements for specific culture, structural units of all tissues developing in the resultant tumors.

Circulation

Hypotension and Infarction

True cardiogenic shock may be reproduced in dogs by ligating 2 major branches of the coronary artery, thus causing massive myocardial infarction. In dogs rendered hypotensive by excessive bleeding, the performance of the left ventricle equals or surpasses the response in normotensive animals. When the damage is less extensive, the circulation is adequately maintained by the unaffected muscle and the reaction to the increased load is normal. Drs. Arthur Selzer of Stanford University, San Francisco, and Gerard W. Taylor of St. Bartholomew Hospital, London, believe that a similar pattern of circulatory derangement obtains in human infarction.

Am. Heart J. 44:12-22, 1952.

Immunology

Antibody Molecules

A vital factor in immunity is the life span of antibody molecules, which varies with the subject's species and age. Homologous gamma globulin labeled with radioactive iodine was employed at the University of Pittsburgh in tests performed by Dr. Frank J. Dixon and associates. Molecular half-life was 12 to 14 days in human adults but longer in infants. The labeled gamma globulin in rabbit serum had a half-life of 4 to 5 days; in dogs over 7.

Federation Proc. 11:466-467, 1952.

Nutrition

Nitrogen Utilization

At all levels of caloric intake, the body gains more weight, or loses less, when food contains protein and carbohydrate instead of carbohydrate alone. Dextrose and isocaloric quantities of dextrose and protein hydrolysate (Amigen), with vitamins and minerals, were fed to 52 groups of 6 rats each. Dr. Warren M. Cox, Jr., and associates of Evansville, Ind., observed, for example, that rats taking a third of the caloric need as dextrose lost 16 gm. but with dextrose and protein hydrolysate together lost only 4 gm. Greater differences of the same type were seen at each caloric level in every group.

Federation Proc. 11:439, 1952.

Experimental Medicine

Lipoprotein Metabolism

Purification of the components involved in the clearing of lipemic plasma provides further insight into the role of heparin in lipoprotein metabolism. The ability of heparin to protect rabbits from the atherosclerotic effects of high cholesterol diets has recently been emphasized by workers who also suggest that an action more subtle than antithrombosis or vasodilation is responsible for the beneficial effects of heparin in human coronary artery disease. Heparin is required for the in vitro conversion of plasma precursor to clearing factor by cell-free homogenates of heart or lung. Dr. Christian B. Anfinsen and associates of the National Institutes of Health, Bethesda, Md., have purified the plasma components of the synthetic reaction by low-temperature alcohol fractionation. The clearing activity of plasma is localized in the globulin fraction. Heparin content of the clearing factor is greater than predicted by assumption of a uniform distribution throughout total plasma space, indicating the possibility of presence of heparin as a prosthetic group. Preliminary experiments suggest an enzymic nature for the clearing factor. A coprotein which seems to play an acceptor role in the clearing reaction has also been purified from plasma. Ultracentrifugal pattern changes resulting from the action of purified clearing factor on serum from a patient with proved myocardial infarction clearly reveal an increase in high density lipoproteins of the S_f 10-20 class at the expense of the larger molecule–lower density S_f 20-30 component. Normal S_f 3-10 lipoproteins remained unchanged.

Science 115:583-586, 1952.

Endocrinology

Adrenal-Ovarian Function

Urinary corticoids in guinea pigs show a cyclic variation closely related to the estrous cycle. Drs. Bernard Zondek and Shlomo Burstein of the Hebrew University–Hadassah Medical School, Jerusalem, observed the same low, acyclic excretion in the male and in the ovariectomized female animal. Administration of estrogens causes an almost immediate increase of the cortical substances in both the normal and the spayed animal, presumably through stimulation of the anterior pituitary to discharge ACTH.

Endocrinology 50:419-428, 1952.



"Hadn't you better see Mr. Stacy right away, Doctor?"

Fellows Chloral Hydrate

CAPSULES

NON-BARBITURATE
NON-CUMULATIVE
TASTELESS
ODORLESS



3¾ gr.
Daytime sedation –
without hangover

7½ gr.
Restful sleep – *without hangover*

℞ – specify *Fellows* for the *original*, stable, hermetically sealed soft gelatin capsules Chloral Hydrate.

Available – 3¾ gr. (0.25 Gm.), bottles of 24's and 100's
7½ gr. (0.5 Gm.), bottles of 50's

Samples and literature on request

pharmaceuticals since 1866

28 Christopher Street
New York 14, N. Y.

Fellows
MEDICAL MFG. CO., INC.
Pharmaceuticals

short REPORTS

Vital Statistics

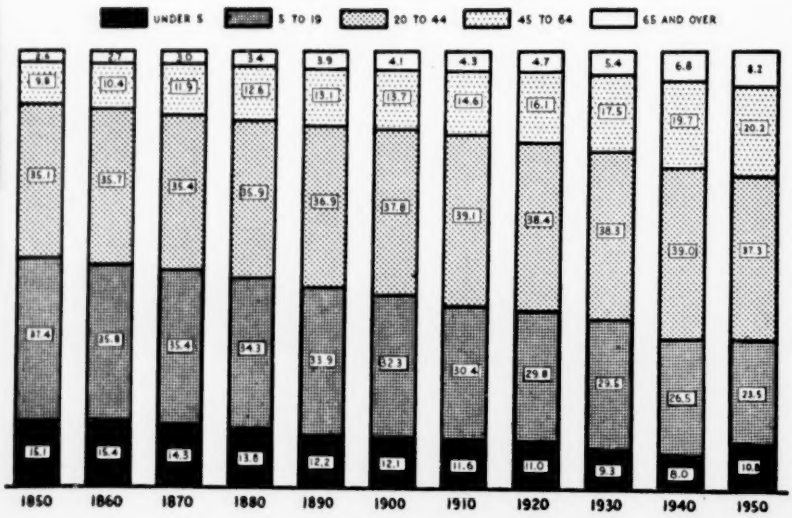
Changing Population

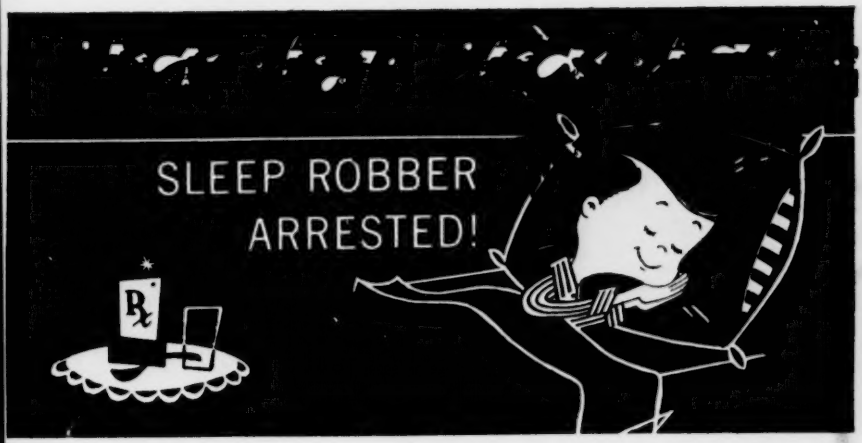
Reversing the trend that has been in evidence since 1860, the proportion of children under 5 years of age in the United States increased from 8 to 10.8% between 1940 and 1950. The 8.2% survival rate among persons 65 and older in 1950 was exactly twice that at the turn of the century (see illustration). The recent bumper crop of children and increasing number of the aged will present problems in many areas, remarks Dr. Louis I. Dublin of the Metropolitan Life Insurance Company, New York City. The census of 1950 also reveals that the decennial population growth rate was 14.5%, twice that between 1930 and 1940, resulting in an addition of 19,000,000 persons. The total in the United States today is over 156,500,000. Marriages reached an all-time high of 16.4 per 1,000 in 1946 and births were 26.6 per 1,000 in 1947, largest in a quarter century. In 1951, some 3,833,000 children were born. One-half of deaths among males occur before the age of 65, and 1 out of 5, under 45. The widows outnumber the widowers 3 to 1.

Statist. Bull. Metrop. Life Insur. Co. 33:1-3, 1952.

PERCENT DISTRIBUTION OF TOTAL POPULATION BY AGE

UNITED STATES, 1850 TO 1950





ALL's well, sleep-robbing cough has been arrested. Good triumphs over bad again. And it's a quiet night for the Junior Police.

Night-long freedom from cough can often be provided with a single bedtime dose of PHENERGAN EXPECTORANT.

This agreeably flavored new expectorant gives your patients the combined benefits of Phenergan, the *long-acting antihistaminic* that has *local anesthetic action*, plus an effective, time-tested *sedative-expectorant* prescription formula.

Wyeth®

PHENERGAN®

EXPECTORANT

- WITH CODEINE*
  Promethazine Expectorant with Codeine

NEW ➤
- PLAIN (without codeine)
  Promethazine Expectorant

Supplied in bottles of 1 pint.

**Exempt Narcotic*

Nutrition

Wheat Flour in Celiac Disease

Gastrointestinal changes are identical in children with celiac disease and adults with idiopathic steatorrhea. Removal of wheat from the diet of 10 children studied by Dr. Charlotte M. Anderson and associates of the University of Birmingham, England, resulted in rapid improvement clinically and biochemically. The reintroduction of wheat flour or gluten was followed by recurrence of symptoms; but wheat starch had no harmful effects.

Lancet 262:836-842, 1952.

Obstetrics

Penicillin for Eclampsia

Toxemia of late pregnancy may be precipitated by release of harmful euglobulin from the uterus into general circulation. Penicillin apparently has a neutralizing effect, quite aside from its bactericidal power. In 2 cases of eclampsia, 4 of severe preeclampsia, and 2 instances of toxemia in the second trimester, diuresis began, urinary albumin dropped, and symptoms abated soon after penicillin was started; withdrawal was followed by relapse. However, 2 fetuses died. Addition of stilbestrol in 2 instances seemed to protect both mother and child. Dr. George V. Smith and associates of the Fearing Research Laboratory, Free Hospital for Women, Harvard University, and the Boston Lying-in Hospital recommend no less than 1,000,000 units of potassium penicillin G injected intravenously and 1,000,000 units intramuscularly, followed by the same dose by intramuscular or intravenous route, at least every two hours for a period depending on response.

Am. J. Obst. & Gynec. 63:1185-1199, 1952.

Dermatology

Prantal for Skin Diseases

In divided daily amounts of 200 to 400 mg., scaled down to a maintenance dose, Prantal is effective in some cases of hyperhidrosis. Dr. Lawrence M. Nelson of Santa Barbara, Calif., found that the drug (N,N-dimethyl-4-piperidylidene-1, 1-diphenylmethane methylsulfate) has anticholinergic and antihistaminic effects also of value in urticaria or pruritus or both, exudative neurodermatitis, and dyshidrotic eczema. Reactions were few and not serious.

J. Invest. Dermat. 18:373-375, 1952.

Pediatrics

Diaper Rash

A synthetic drug, o-benzyl-p-chlorophenol, called Stero-Test, when used as a diaper rinse inhibits the growth of *Bacterium ammoniagenes, Eberthella typhosa,* and *Staphylococcus aureus* and prevents the development of ammoniac dermatitis in infants. Dr. LeRoy J. Stephens and associates of St. Louis University found experimentally that the substance is nonallergenic and nontoxic in high concentration. Soaps, anionic detergents, and organic materials do not interfere with the bactericidal efficiency.

J. Pediat. 40:750-756, 1952.



Modern sectionals...

designed with your reception room in mind!



Stools



Chairs

Here's quiet elegance and luxury for your office...with the glowing beauty of new hand-finished Royal Satin Chrome accenting the slim grace of smart square tubing. Royal sectional chairs are responsive to any arrangement—use them settee fashion, around corners, back to back, or individually. In every way, they reflect your excellent taste.

Royal . . . your only single source for over 150 metal furniture items.

ROYAL METAL MANUFACTURING CO.
175 North Michigan Avenue, Dept. 1110 Chicago 1
New York • Los Angeles • Michigan City, Ind.
Warren, Pa. • Preston and Galt, Ontario



Desks

Royal
metal furniture since '97

ROYAL METAL MFG. CO.
175 N. Michigan Ave., Dept.1110 Chicago 1

Please send me a free copy of your new Royal catalog.

Name_____

Address_____

City_____ Zone____ State____

Selective blending

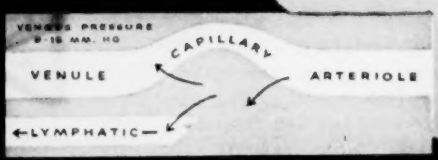
To meet the varying needs of edematous patients, progressive therapy usually dictates a judicious blending of diuretics for optimal long-term results. *Calpurate* lends itself admirably to such a regimen.

It is the chemical compound—theobromine calcium gluconate—distinguished for its moderate diuretic action and minimal toxicity. It is remarkably free from gastro-intestinal and other side-effects, and does not contain the sodium ion.

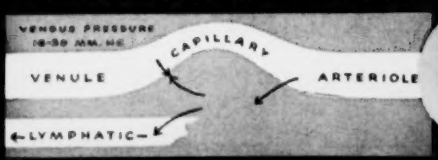
Calpurate is also helpful in other cardiac conditions because it stimulates cardiac output.

Calpurate with Phenobarbital is useful in relieving anxiety and tension, as in cases of hypertension. *Calpurate*, supplied as Tablets (500 mg.) and Powder; *Calpurate with Phenobarbital* (16 mg.), as Tablets.

MALTBIE LABORATORIES, INC., NEWARK 1, N. J.



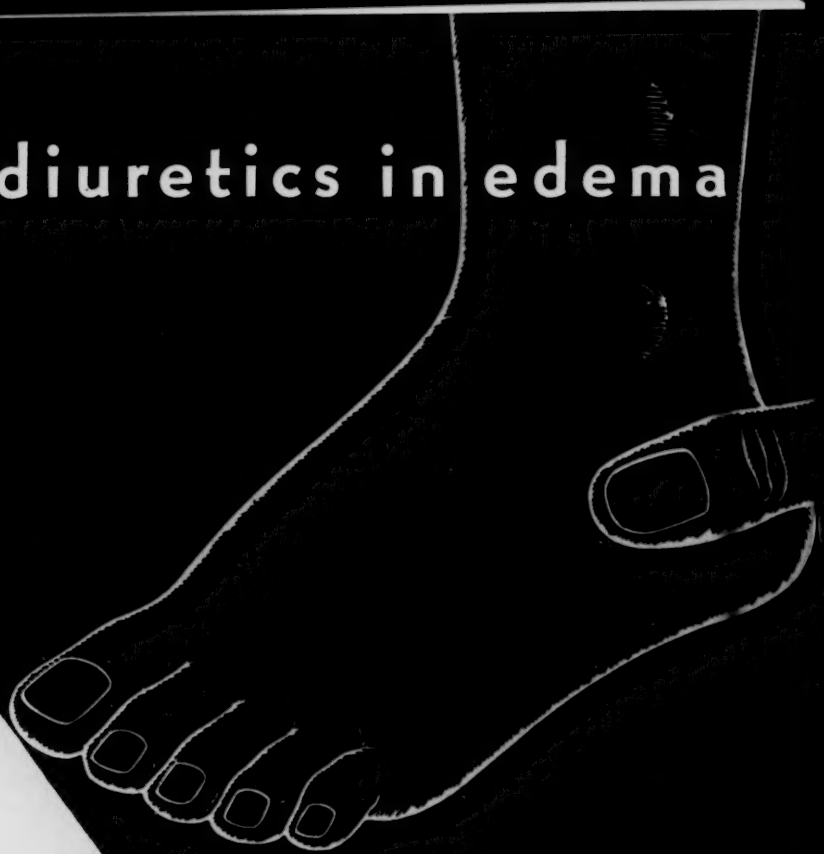
Normal exchange of fluids in tissues



Edema from increased venous pressure

Calpurate®

of diuretics in edema



In Congestive Heart Failure

Calpurate is particularly indicated: *When edema is mild and renal function adequate . . . during "rest periods" from digitalis and mercurials . . . where mercury is contraindicated or sensitivity to its oral use present . . . for moderate, long-lasting diuresis in chronic cases.*

The moderate, non-toxic diuretic

Hematology

Test for Intrinsic Factor

Radioactive vitamin B_{12} provides a simple, rapid method of assay for intrinsic factor when pernicious anemia is suspected. Dr. A. D. Welch and associates of Western Reserve University at Cleveland employ cyanocobalamin-Co^{58}, the gamma radiation of which can be measured in feces by scintillation counting. Even during remission, patients given only 0.5 μg. of the vitamin will excrete 70 to 95% of the cobalt in feces. When intrinsic factor in gastric juice or concentrates of hog stomach is administered simultaneously, from 5 to 30% of the cobalt ingested is excreted. Hog stomach fraction is equally effective whether given in doses of 10 or 100 mg.

Federation Proc. 11:308-309, 1952.

Oncology

Cancer Regression

In treatment of transplanted cancers in rats, the ethylenephosphoramides have recently been found to be effective. N-pentamethylene and N-(3-oxapentamethylene)-N',N"-diethylenephosphoramide are capable of causing the regression of sarcoma 231 in King A rats and the Flexner-Jobling carcinoma in Sprague-Dawley rats. Similar results have been achieved with N,N',N"-triethylenephosphoramide. These compounds are of interest in tumor chemotherapy because of being less toxic than 2,4,6-triethylenimino-*s*-triazine. A dose of 0.2 mg. N,N',N"-triethylenephosphoramide per kilogram injected intraperitoneally twice daily for fifteen to sixty-five days causes complete regression in most of the rats treated. Dr. M. L. Crossley and associates of Rutgers University, New Brunswick, N. J., find that 0.4 mg. of the N-pentamethylene derivative per kilogram causes tumor regression in 70% of the animals treated, without demonstrable toxicity. N-(3-oxapentamethylene)-N',N"-diethylenephosphoramide also causes regression and is relatively low in toxicity, but must be used at higher dosage levels.

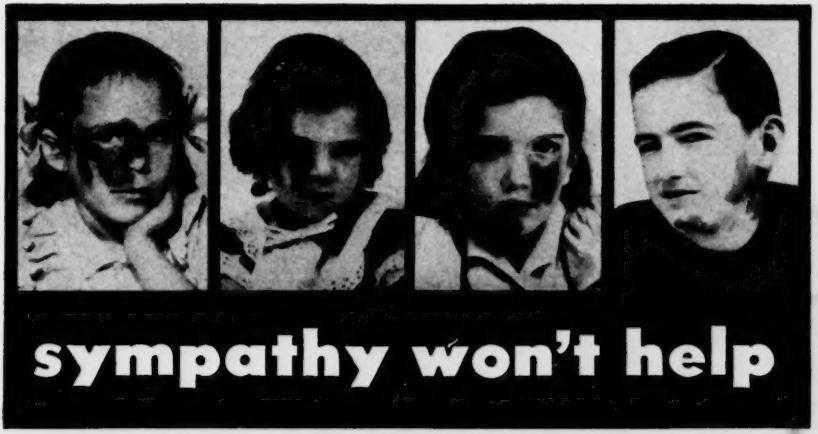
Cancer Research 12:256, 1952.

Epidemiology

Distribution of Multiple Sclerosis

Canada and northern areas of the United States apparently have a higher incidence of multiple sclerosis than the deep South. Records of 3 cities are presented by Dr. Leonard T. Kurland of the Mayo Clinic, Rochester, Minn. In Boston and Winnipeg, prevalence ratios as of January 1949 are almost identical, and each is 3.5 times that for New Orleans. Average annual incidence and mortality calculated for ten years is 3 times as high in the North. In each city, rates are the same for white and nonwhite groups and for native and foreign-born populations. Similar figures are cited for Kingston, Ont., and for Rochester, Minn., by other investigators. Northern communities have about 40 to 50 cases per 100,000 population and New Orleans 12 cases per 100,000.

Am. J. Hyg. 55:457-481, 1952.



sympathy won't help



Covermark **will–**

COVERMARK and SPOTSTIK conceal skin discolorations—permanent or temporary. Recommended to patients by hundreds of doctors to safely and effectively conceal birthmarks, burns, scar tissue, vitiligo, broken veins and discolorations.

COVERMARK CREAM in shades—regular type and waterproof type to match complexion colorings. Recommended for large permanent blemishes.

SPOTSTIK, waterproof COVERMARK in stick form, for small or temporary blemishes.

Write for free illustrated professional booklet on COVERMARK and SPOTSTIK.



LYDIA O'LEARY, Inc. Dept. 10-2 MM • 41 East 57th Street, New York, N. Y.



PAINFUL and TIRED FEET





seriously affect work and pleasure

there is pain and tiredness ALL OVER

IODEX c Methyl Sal— *with massage* stimulates circulation, relieves pain and itching. Soothes tired feet and aids in restoring overstrained muscles.

IODEX c METHYL SAL
is well known as a logical treatment for Athlete's Foot.

Samples cheerfully sent on request.

MENLEY & JAMES, LTD.
70 West 40 St., New York 18



- *The long awaited development of rapid, precision sterilization for the professional office.*
- *Factory guaranteed. Sold only by authorized dealers.*
- *For further information write to Department GE10.*

AMERICAN STERILIZER COMPANY
Erie, Pennsylvania

DESIGNERS AND MANUFACTURERS OF SURGICAL STERILIZERS, TABLES AND LIGHTS

Obstetrics

Simple Pregnancy Test

A new colorimetric test for pregnancy depends on ability of maternal serum to destroy added histamine. No laboratory animals are required, about 15 samples can be run in four hours including incubation time, and results are apparently 100% accurate from sixty days after the last menstrual period until term. Qualitative, quantitative, and microquantitative technics are employed by Dr. Anne C. Dodge of Washington University, St. Louis. In the simplest procedure, 5 cc. of serum and 0.25 cc. of standard histamine solution are incubated in a 20-cc. test tube for sixty minutes at 56° C. Reaction is stopped with 5 cc. of 10% trichloracetic acid, the solution mixed immediately and centrifuged after standing thirty minutes. Then 5 cc. of the supernate is transferred to a 20-cc. tube containing 3 cc. of alkaline phosphate buffer. To each tube 0.3 cc. of 2% 2, 4-dinitrofluorobenzene is added and mixed. Each tube is heated for thirty minutes in a water bath at 56° C. When cool, 5 cc. of methyl-n-hexylketone is added; the tubes are shaken and centrifuged briefly. Then 4 cc. of the ketone layer is transferred to an 8-cc. tube containing 1 cc. of twice normal hydrochloric acid, and that tube is shaken and centrifuged. The ketone layer is removed by aspiration and the acid layer compared with a standard. A paler yellow color of the test sample indicates that the subject is pregnant.

Am. J. Obst. & Gynec. 63:1213-1222, 1952.

Statistics

Diabetic Survey of Physicians

Doctors seem much more aware of diabetes mellitus in their kin than are other subjects questioned, although medical men are no more susceptible to involvement than other people. Statistics from a routine survey of Cincinnati are quoted by Dr. I. Arthur Mirsky of the University of Pittsburgh and associates. Among 362 male physicians examined, 4 had known and 2 previously unrecognized disease. Excluding those with previously diagnosed disease, about 30% of the group reported familial diabetes, including 43% of Jewish doctors and 20% of the non-Jewish. According to the literature, only 5.2% of nondiabetic men in the general population acknowledged the syndrome in their relatives.

Metabolism 1:307-312, 1952.

Virology

Poliomyelitis Heredity

Tendency to poliomyelitis may result if mother and father carry recessive genes influencing susceptibility, although both parents may be resistant to such infection. From a study of twins, Dr. C. Nash Herndon of Wake Forest College, Winston-Salem, N. C., concludes that 75% of siblings of such parents are immune. If 1 member of a pair of identical twins has paralytic poliomyelitis, the likelihood of the other twin having the disease is about 36%. For fraternal twins, the chances of the second twin having the infection are approximately 6%.

A New and Improved Therapy for **DERMATITIS** *in Hairy Areas*

Case: **40 year old male, laborer.**

Diagnosis: **SYCOSIS VULGARIS (Barber's Itch)**



BEFORE

Marked infiltrated erythema, pustulation, crusting and fissuring in spite of prior applications of various ointments, ultra-violet, penicillin, and x-ray.



AFTER

Condition almost completely cleared after eight weeks of treatment with SUPERTAH-5 WITH SULFUR AND SALICYLIC ACID. No infiltration, crusting or fissuring evident.

▶ *Proven Therapeutic Efficacy of Coal Tar . . .*

. . . contains the equivalent of 5% crude coal tar (as in Regular SUPERTAH-5), with 4% sulfur and 3% salicylic acid — free from coal tar's color, odor, irritating and staining.

▶ *In Convenient Non-Greasy Base . . .*

. . . massages into the skin and scalp without creating a gummy, greasy condition. Will not stain.

SUPERTAH-5 WITH SULFUR AND SALICYLIC ACID

Ethically distributed in 1½-oz. jars.

Regular SUPERTAH, the white, non-staining, non-irritating coal tar ointment for Eczema and Allied Skin Diseases is milled in 5% and 10% tar strengths. SUPERTAH-10 for the early stages of therapy and SUPERTAH-5 for use when weeping and crusting have begun to subside.

Ethically distributed in 2-oz. tubes and 2-oz. jars with removable labels.

TAILBY-NASON COMPANY
Kendall Sq. Sta., Boston 42, Mass.

"Sphinx" Reliable Pharmaceuticals Since 1905

Pediatrics

Neonatal Poliomyelitis

Viremia and intrauterine infection may occur in paralytic poliomyelitis. Drs. James F. Johnson and Philip M. Stimson of the New York Hospital–Cornell Medical Center, New York City, describe the clinical picture with supporting although not confirmative laboratory data in an infant first examined on the fourth day of life. Six weeks antepartum the mother had muscular pains in her back and shoulders followed by coryza at the time two brothers resident in the building became ill with the definitely diagnosed disease. The postnatal course of the child's sickness was asymptomatic and afebrile and the paralysis gradually improved.

J. Pediat. 40:733-737, 1952.

Physical Medicine

Cold Resuscitation

Short-wave diathermy permits simultaneous rewarming of deep and superficial tissues in animals subjected to cold exposure. Cardiovascular collapse resulting from insufficient circulation for rapidly rewarmed superficial tissues is thereby avoided, indicating possibility of the procedure for victims of sea immersion or cold-air exposure. Dr. W. G. Bigelow and associates of the University of Toronto find induction coils insulated from the body by ½-in. sponge-rubber pads most effective for rewarming without producing superficial burns. A frequency of 13.56 megacycles per second provides a rewarming rate of about 11° C. per hour in dogs. Monkeys and dogs cooled to 18 to 21° C. rectal by wet- or dry-cold exposure have all been successfully resuscitated with this technic. At such low body temperatures, artificial means of respiration are required and heart rate varies from 2 to 60 beats per minute. During radio frequency rewarming, deep tissue temperatures closely parallel superficial warming. Subcutaneous temperatures rise more rapidly but the ½-in. rubber insulation proves sufficient for preventing burns. No postwarming effect on behavior or intelligence has been noticed in animals. Cessation of respiration and the possibility of ventricular fibrillation in the hypothermic state suggest the electrophrenic respirator, electric defibrillator, and artificial pacemaker as valuable accessories in the treatment of exposure to cold.

Canad. J. M. Sc. 30:185-193, 1952.

Cardiology

Coronary Occlusion

Arterialization of the coronary sinus protects dogs from ventricular fibrillation after circumflex artery occlusion. In the technic, a vein graft between the aorta and the channel is employed, with partial closure near the ostium three weeks later. Ligation of a major branch of the coronary system is then performed. Dr. R. W. Eckstein and associates of Western Reserve University, Cleveland, report that within one hour 14 of 20 dogs without arterialization died, but in the same period none of 10 test animals died.

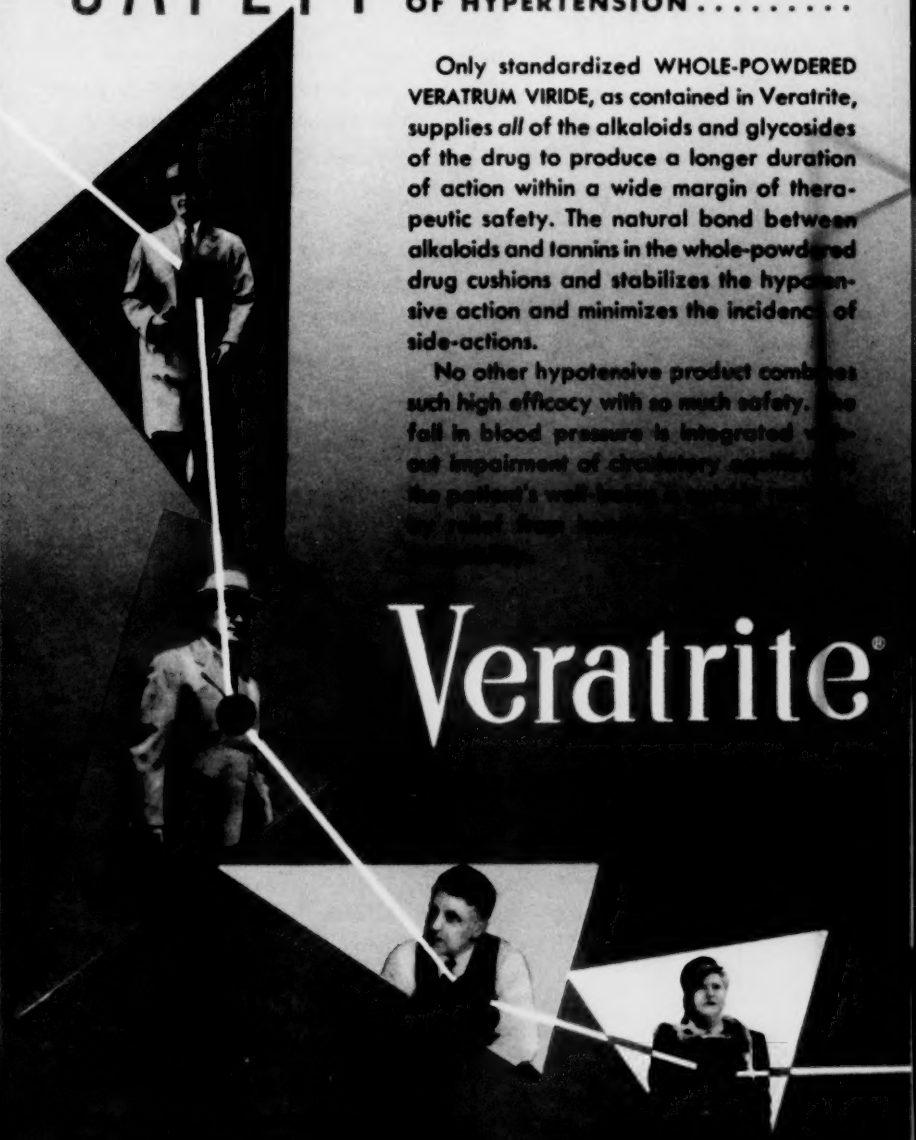
Circulation 6:16-20, 1952.

SAFETY

IN THE PROLONGED CONTROL OF HYPERTENSION . . . . . .

Only standardized WHOLE-POWDERED VERATRUM VIRIDE, as contained in Veratrite, supplies *all* of the alkaloids and glycosides of the drug to produce a longer duration of action within a wide margin of therapeutic safety. The natural bond between alkaloids and tannins in the whole-powdered drug cushions and stabilizes the hypotensive action and minimizes the incidence of side-actions.

No other hypotensive product combines such high efficacy with so much safety. The fall in blood pressure is integrated without impairment of circulatory equilibrium, the patient's well-being [illegible]



Veratrite®

IRWIN, NEISLER & COMPANY • DECATUR, ILLINOIS

AROUND THE CLOCK

PROTECTION

IN

BRONCHIAL ASTHMA....



Dainite Tablets provide day and night protection for the asthmatic patient, with almost complete absence of side-effects.[1] The use of antinausea factors safely permits a more effective, prolonged dosage of aminophylline. Marked subjective improvement of respiratory function with significant relief of wheezing, dyspnea and cough has been observed in extensive clinical trials.[1]

Supplied as the DAINITE UNIT containing 48 Day Tablets and 18 Nite Tablets in a unique dispensing unit . . . at prescription pharmacies everywhere.

(1) J.A.M.A. 147: 730-737, 1951.

IRWIN, NEISLER & CO.

DECATUR, ILLINOIS



DAI

TABLETS



Obstetrics

Pregnancy and Pulmonic Stenosis

A successful outcome of pregnancy may follow surgical correction of pulmonic stenosis in the tetralogy of Fallot. Dr. Keith P. Russell and associates of the California Hospital, Los Angeles, carefully supervised prenatal care and planned a mode of conduct of labor with caudal anesthesia in a patient previously operated on by the Blalock procedure and later treated for subacute bacterial endocarditis. Vaginal delivery was effected. Penicillin was given pre and post partum prophylactically with no undue reactions.

J.A.M.A. 149:266-268, 1952.

Heart Disease

Cardiograms by Telephone

Conversion of electrocardiographic voltages into a frequency-modulated signal, with subsequent demodulation at the receiving end, permits transmission of electrocardiograms over ordinary telephone trunk lines. A small preamplifier connected to the patient effects the change. The signals may be recorded on tape or any standard instrument or viewed on the cathode-ray screen. The sender and receiver may talk simultaneously over the same system. Walter E. Rahm, Jr., and associates of the University of Nebraska, Omaha, find that the fidelity of transmission is better than the minimum required by the Council on Physical Medicine.

Nebraska M. J. 37:222-223, 1952.

Orthopedics

Intramedullary Nailing

Even in the presence of infection, the increased stability provided by intramedullary nailing hastens union and healing of fractures. Dr. H. Lowry Rush, Jr., and associates of the University of Pennsylvania, Philadelphia, believe that the added degree of fixation outweighs the disadvantages of the foreign body and injury to the medullary cavity. In 8 of 10 dogs with bilateral grossly contaminated fractured ulnas, each treated on one foreleg with a Kirschner wire and with simple reduction on the other, the infection was less severe on the pinned legs and was limited to the traumatized area.

Surg., Gynec. & Obst. 94:727-732, 1952.

Circulation

Cholesteremia Reduced

Development of high blood cholesterol in rabbits may be retarded and somewhat reduced by phosphorylated hesperidin. The compound inhibits hyaluronidase, an enzyme which probably increases permeability of the intestines and absorption of cholesterol. For rabbits fed a fatty diet, the average rise in blood cholesterol in ten days was 532 mg. per 100 cc. without hesperidin, and 285 mg. with the glycoside, report Drs. Gustav J. Martin and J. M. Beiler of Philadelphia. When treatment was reversed during the second test period, respective values of the blood cholesterol rose 128 mg. and dropped 140 mg.

Federation Proc. 11:253-254, 1952.

Immunology

Poliomyelitis Test

Strains of poliomyelitis virus can be isolated and identified by rapid and economic methods. Dr. Nada Ledinko and associates of Yale University, New Haven, Conn., employ the cytopathogenic effect of virus on fibroblasts proliferating in roller tube cultures of monkey testicular tissue as an indicator. Changes are neutralized by immune sera, thus permitting an in vitro test for antibodies. Removal of specific antibody each time the tissue culture fluid is renewed will prevent fibroblastic degeneration, whereas a virus break through occurs when antibody is not renewed. Virus of 26 strains was isolated from 40 samples of human stool and 2 samples of spinal cord.

Federation Proc. 11:474-475, 1952.

Oncology

Terramycin and Cortisone

Cortisone induces necrotic lesions in spontaneous or induced mammary carcinoma of mice. Such lesions involve 25 to 90% of the tumor mass, but are frequently accompanied by generalized destructive changes in the lungs, liver, and kidneys. By adding terramycin in a concentration of 0.1% to the drinking water of the cortisone-treated mice, Dr. Carlos Martinez and associates of the University of Minnesota, Minneapolis, are able to reduce the incidence of generalized reaction to zero. Terramycin administration does not reduce the frequency of cortisone-induced tumor necrosis. That survival may be expected after tumor-necrotizing doses of cortisone, when accompanied by terramycin, suggests that some additional agent with tumor-damaging properties combined with the cortisone and the terramycin therapy may produce more complete tumor destruction with equally good survival rates.

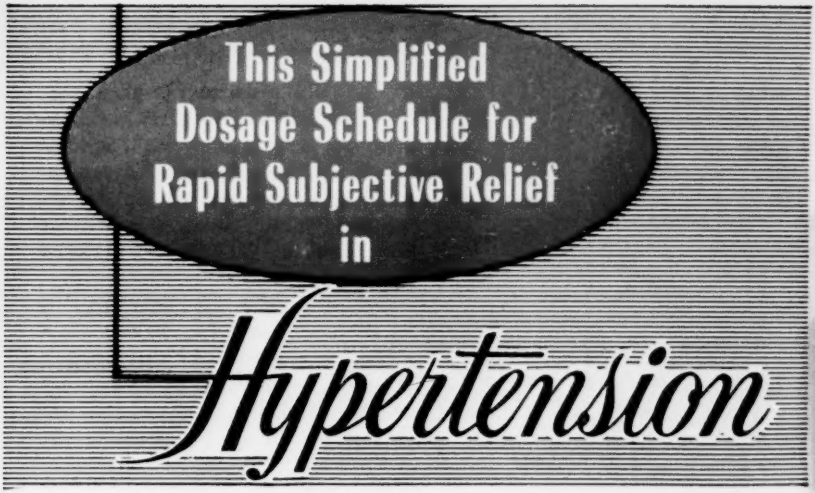
Proc. Soc. Exper. Biol. & Med. 80:81-83, 1952.

Obstetrics

Treatment of Toxemia of Pregnancy

Vergitryl, a highly purified, well-standardized extract of veratrum viride, may simplify management of hypertensive toxemias of pregnancy. Drs. Frank A. Finnerty, Jr., and Edward D. Freis of Georgetown University, Washington, D.C., report that the purified substance has the following advantages over crude extracts: [1] Responses to standard doses of 0.75 unit are predictable so that individual titration is not necessary. [2] Administration may be intramuscular rather than intravenous and continuous except in convulsive cases. Repeated doses may be given as often as once an hour if needed to maintain the hypertensive effect. Usual interval between doses is three to four hours. In all of 17 cases of moderate to severe preeclampsia, hypertension and symptoms of toxemia were quickly controlled by the use of Vergitryl. Similar results were obtained with slight preeclampsia.

M. Ann. District of Columbia 21:75-76, 1952.



Out of the vast clinical experience that has accumulated from the increasing use of Veriloid has come a simplified dosage schedule which rapidly produces relief from the distressing discomfort of hypertension. Within a short period, patients volunteer that they "feel better," even before the blood pressure begins to drop.

Here is the new daily dosage schedule which proves satisfactory for initial therapy in 9 patients out of 10:

1st Dose:	After breakfast	2 mg.
2nd Dose:	6 to 8 hours later	2 mg.
3rd Dose:	6 to 8 hours thereafter	2 to 3 mg.

According to this plan, the second dose is taken about two hours after lunch, the third dose about two hours after dinner.

VERILOID®

BRAND OF ALKAVERVIR

This schedule simplifies dosage calculation, is quickly productive of clinical results, minimizes nausea and other side actions. Dosage should be increased by 1 mg. per day every third day until a satisfactory blood pressure drop is achieved. The evening dose is usually 1 or 2 mg. larger than the other two doses of the day. For the average patient, a daily dose of 9 to 15 mg. proves effective and rarely causes side actions.

Veriloid, brand of alkavervir, is a unique alkaloidal fraction of Veratrum viride. It is indicated in the treatment of all grades of essential hypertension and in hypertension of renal origin. Available on prescription at all pharmacies, in 1, 2, and 3 mg. tablets. Order your free copy of the booklet describing Veriloid therapy today.

RIKER LABORATORIES, INC.

8430 Beverly Boulevard — Los Angeles 48, California



URINARY INFECTION

urised

CHIMEDIC

Through its *rapid, dual action*, URISED effectively combats the two primary causes of pain, burning, urgency, dysuria and frequency, in genito-urinary infections.

URISED exerts the prompt antibacterial action of methenamine, salol, methylene blue and benzoic acid along the entire urinary tract—to rapidly reduce irritation, spasm and the pus cell count—encourage healing of the mucosal surfaces.

URISED rapidly relaxes painful smooth muscle spasm and aids in the restoration of normal tone through the dependable parasympatholytic action of atropine, hyoscyamine and gelsemium.

Literature available on request.

For more prompt, dependable control of pyelitis, cystitis and urethritis,

specify

urised CHIMEDIC

CHICAGO PHARMACAL COMPANY

5547 N. Ravenswood Ave., Chicago 40, Illinois

Pacific Coast: 1161 W. Jefferson Blvd., Los Angeles 7, Calif.
Northwest Branch: 5513 Airport Way, Seattle 8, Wash.

Therapeutics

Effective New Diuretic

Orally administered 3-chloromercuri-2-methoxy propylurea will produce as great a diuretic response as conventional doses of intramuscular Mercuhydrin. By injection, the drug is 4.3 times as potent as Mercuhydrin. No other mercurial compound has as favorable a parenteral-oral ratio, 4:1. When the total amount was given at one time, gastrointestinal distress was sometimes produced, but Dr. Theodore Greiner and associates of Cornell University, Beth Israel Hospital, and Hospital for Joint Diseases, New York City, believe that a fractional dosage plan may produce satisfactory diuresis with less disturbance.

Proc. Soc. Exper. Biol. & Med. 80:117-121, 1952.

Apparatus

Portable Phlebomanometer

Modification of a direct-determination phlebomanometer to reduce dead air space and simplify operation is described by Dr. William A. Sodeman of the Tulane University of Louisiana, New Orleans. A 24- to 27-gauge needle for subcutaneous injection is attached to one end of a 10-cm. glass adapter marked at 1-mm. intervals. A rubber or plastic tubing extends from the other end to a bellows system through a valve which regulates atmospheric pressure. The apparatus, which is compact and portable, may be used on small veins and is also well adapted for the measurement of tissue and spinal fluid pressures.

Am. Heart J. 43:687-690, 1952.

IMPRESSIVE NEW EVIDENCE CONFIRMS

striking benefits *in* resistant acne

CUTANEOUS VASOCONSTRICTING PRINCIPLE FROM LIVER

In a series of 22 cases of acne vulgaris resistant to all conventional methods of treatment (including massive vitamin A therapy), Nierman[1] has obtained remarkable results with **KUTAPRESSIN***... confirming previous observations of Marshall[2,3] and others,[4,5] who used early forms of this preparation.

ALSO VALUABLE IN PRURITUS ANI AND KELOIDS—Marshall[6] has reported relief of distressing symptoms in 16 cases of pruritus ani treated with **KUTAPRESSIN**, and has found the drug effective in reducing the size and disfiguring appearance of keloids.[2,3]

CLINICAL RESULTS WITH KUTAPRESSIN[1]

- Disappearance or marked amelioration of pustules and other lesions
- Regression of scars and pits, usually amenable only to surgery
- Early improvement, securing enthusiastic patient-cooperation
- New social and economic outlook for patient

SUPPLIED: In 10-cc. multiple-dose vials.

REFERENCES: 1. Nierman, N. M.: J. Indiana M. A. (In press). 2. Marshall, W., and Schadeberg, W.: Wisconsin M. J. 49:369, 1950. 3. Marshall, W.: M. Times 79:222, 1951. 4. Stillians, A. W.: Mississippi Valley M. J. 64:135, 1942. 5. Lichtenstein, M. R., and Stillians, A. W.: Arch. Dermat. & Syph. 45:959, 1942. 6. Marshall, W.: Mississippi Doctor (Aug.) 1951.

*Trademark of Kremers-Urban Company.

K·U

Kremers • Urban Co.

Ethical Pharmaceuticals Since 1894

MILWAUKEE 1, WISCONSIN

186A52



In your profession, your hands are priceless! Protect them against the irritation caused by soaps with high alkalinity. SEPTISOL has a low pH . . . only 1/60 the alkaline potential of normal soap. In addition . . . SEPTISOL is *super fatted* with natural vegetable oils and emollients. These two "built-in" advantages assure mildness . . . effectively block skin irritation.

Also, SEPTISOL provides (1) superior antisepsis . . . "surgically clean" hands, (2) profuse lather (3) thorough cleansing action, (4) economy . . . . . SEPTISOL is supplied as a concentrate; one gallon makes two gallons "use" solution.



Try SEPTISOL today. Just call your dealer.

Free plastic dispenser with each gallon of Septisol

VESTAL INC.
ST. LOUIS 10, MO.

Cardiology

Digitoxin Excretion

The body may retain Digitoxin unchanged for long periods after a single intravenous dose. At the University of Chicago, 0.5 to 1.5 mg. of a highly purified radioactive glycoside was given to 3 patients with heart failure. Dr. G. T. Okita and associates noted very rapid elimination during the first twenty-four hours, and from 60 to 80% of the dose was excreted through the kidneys. The larger the amount given, the longer the drug remained in the body. Digitoxin, as such, was detected in urine for twenty-three to fifty days, and the metabolites for thirty-one to eighty-five days.

Federation Proc. 11:380-381, 1952.

Epidemiology

Tuberculosis among Hospital Employees

An incidence of 9.1 new pulmonary tuberculosis infections per 1,000 person-years, 9 times higher than among the general population, was found in three New York state tuberculosis hospitals. Affected the most was the nursing group, 20.9; followed in frequency by technical workers, 12.3; ward dietary, 10.6; laundry, 8.7; and housekeeping, 7.4. In reporting the development of the disease in 51 of 2,664 employees observed for from one month to over sixteen years, Dr. Edward X. Mikol and associates of the New York State Department of Health, Albany, stress the necessity of constant rigid preventive measures to reduce the admitted occupational hazard.

Am. Rev. Tuberc. 66:16-27, 1952.

A case of clinically documented

CONSTIPATION CORRECTION

THE CASE

True Correction vs. Temporary Relief

The case for Cellothyl as a constipation corrective rests on *physiologically correct* action. In contrast to the temporary relief afforded by lubricants and harsh purgatives, Cellothyl acts in a natural way to provide truly corrective therapy. When taken as directed, with adequate fluid intake, Cellothyl helps re-establish normal peristaltic action by providing inert smooth bulk in the colon. Its gentle, physiologic mechanical stimulation acts to produce soft, moist, easily passed stools within a few days. Regularity can then be maintained with reduced dosage.

THE CLINICIANS

1. Schweig, K.: New York State J. Med. 48:1822 (Aug. 15) 1948.
2. Seidmon, E. E. P.: Am. J. Digest. Dis. 18:274 (Sept.) 1951.
3. Wechsler, L., et al.: Geriatrics 6:293 (Sept.-Oct.) 1951.
4. Bargen, J. A.: Gastroenterology 13:275 (Oct.) 1949.
5. Keeler, K. C., and Rusk, H. A.: New York State J. Med. 52:75 (Jan. 1) 1952.
6. Musick, V. H.: J. Oklahoma M. A. 43:360 (Aug.) 1950.
7. Newey, J. A., and Goetzl, F. R.: Permanente Found. M. Bull. 7:67-78 (July) 1949.

THE CONCLUSIONS

Results good to excellent in 92% of cases.[1] No failures in the group that took the medication.[2] Caused moderate reduction of emptying time in a majority of patients.[3] Striking results.[4] Restores normal bowel function in a high percentage of cases, even in paraplegics posing unusual difficulties.[5] Successful in all types of patients suffering from all kinds of constipation.[6] Corrects chronic constipation which has persisted as long as 50 years.[7]

Cellothyl® *the original methylcellulose "peristaltic"*

CHILCOTT *Laboratories Inc.*

MORRIS PLAINS, NEW JERSEY

FORMERLY THE MALTINE COMPANY

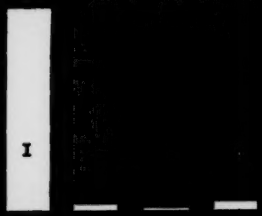
S

for



(Above) Physicians' and technicians' opinions. "The outstanding preference for Robitussin (I) over the other three remedies is dramatic."

(Below) Patients' opinion. "62 per cent of the patients preferred preparation I [Robitussin]"



Ethical Pharmaceuticals
of Merit since 1878

Robins

cough control

In a study involving 52 institutionalized tubercular patients, having in common the symptom cough, "both patients and physician-observers concluded that glyceryl guaiacolate (Robitussin®) was the most effective preparation (and it is probable that this reflects its superior secretory-increasing activity)."*

Each teaspoonful (5 cc) contains: glyceryl guaiacolate 100 mg., and desoxyephedrine 1 mg., in a palatable aromatic syrup. Available in pints and gallons.

* Am. Prac. 2:850, 1951

R

A. H. ROBINS CO., INC. • Richmond 20, Va.

Less than 1% nicotine—

yet as satisfying to your patients as they're sensible



When the patient must be cautioned to smoke less—you can often spare him any personal sacrifice by telling him about Sano cigarettes, Sano all Havana cigars, or Sano pipe tobacco—all with less than one percent nicotine.

In the special Sano process, the finest quality tobaccos are denicotinized to contain less than 1% without losing their rare flavor, aroma and satisfying effect.

Sano will allow your patients to enjoy a really satisfying smoke, as well as a mighty sensible one.

A trial supply of Sano cigarettes gladly sent to physicians

Fleming-Hall Division, United States Tobacco Co.
Dept. A, 630 Fifth Ave., New York 20, N.Y.

Please send me a trial supply of Sano cigarettes.
☐ Check here if you also wish Sano pipe tobacco.

Name.....M.D.

Street.....

City.....Zone.....State.....

Gastroenterology

Prantal in Peptic Ulcer

Intramuscular administration of 25 to 50 mg. of Prantal reduces gastric secretions and motility as satisfactorily as Banthine, but 100- to 200-mg. doses orally produce inconstant effects and are inferior to 100 mg. of Banthine. Dr. C. R. Rowe, Jr., and associates of Duke University, Durham, N. C., found that minimal mydriasis and dryness of the mouth are produced by this parasympathetic blocking agent, a quaternary ammonium derivative, but neither was considered troublesome by patients. Because of the fewer and less intensive side effects, 1 ulcer patient preferred Prantal during the day and Banthine in the evening and late at night.

Gastroenterology 21:90-103, 1952.

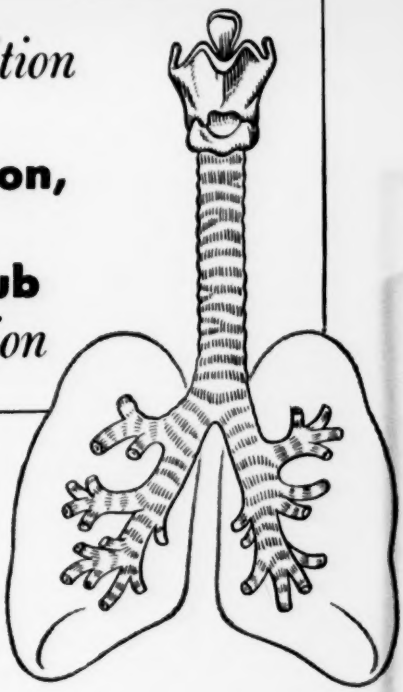
Radiation Therapy

Gold for Neoplastic Effusions

Hazards attending radioactive colloidal gold (Au^{198}) therapy are so well controlled that adjunctive use of the substance is justified in the short-term palliative care of patients with malignant abdominal and pleural effusions. Although treatment with Au^{198} has been empirical, Dr. T. Howard Clarke of Northwestern University, Chicago, reports that the present dosage of 125 to 150 millicuries per treatment is a fairly acceptable standard. Certain precautions include maintenance of sterility, accurate measurement of dosage, protection against external radiation, shielding both patient and technician, and avoidance of physical contamination.

Quart. Bull., Northwestern Univ. M. School 26:98-104, 1952.

When the condition calls for **steam inhalation,** *consider* **Vicks VapoRub** *as the medication*



When cold-stuffed upper breathing passages, croupy night coughs, upper bronchial congestion or coughing spasms occur, often your first thought is steam therapy.

Such volatiles as menthol, thymol, and oil of eucalyptus make Vicks VapoRub an ideal medication for use in steam. The well-balanced formula is helpful in soothing the irritated mucosa of the respiratory tract, as well as in combatting the dryness that usually accompanies infection.

One added advantage is that the product is on hand in practically every home, ready for instant use day or night.

We will be pleased to send you a supply of samples for distribution to your patients.

VICK CHEMICAL COMPANY
Department M-1
Greensboro, North Carolina

Please send me, without obligation, a supply of distribution samples of Vicks VapoRub.

Name_____

Street_____

City_____

State_____

teaspoon dosage
good taste
effective therapy

Terramycin | suspension

DON'T MISS  APPEARING REGULARLY IN THE J. A. M. A.

Metabolism

Diabetic Glomerulosclerosis

A lipid metabolic defect associated with diabetic intercapillary nephrosclerosis may be a factor in the renal condition and also a useful early diagnostic clue. Dr. Hyman Engelberg and associates at the Cedars of Lebanon Hospital, Los Angeles, and the University of California, Berkeley, analyzed 14 typical cases. Serum cholesterol was elevated in 11 persons and phospholipid in 10. The outstanding finding, however, was the high level of the S_f 12 to 20 class of lipoproteins in the entire group, with values, ranging from 71 to 308, out of all proportion to cholesterol levels.

Metabolism 1:300-306, 1952.

Immunology

Poliomyelitis Vaccine

An objectionable feature of poliomyelitis virus suspensions derived from tissues of paralyzed mice or monkeys for vaccination is substance from the central nervous system. However, virus with comparable antigenic activity can be obtained in roller tube cultures of monkey testicular tissue. Dr. Jonas E. Salk and associates of the University of Pittsburgh cultivated organisms of all 3 immunologic types. Although some strains were more potent than others, culture virus was antigenic after treatment with formalin in amounts that destroyed infectious potency.

Federation Proc. 11:480, 1952.

TABLES? Shampaine COMPANY has them!

GARFIELD Proctoscopic Table



MORGAN Urological Table



Exact positioning for E.E.N.T., GYN, Proctological, GU or general work.

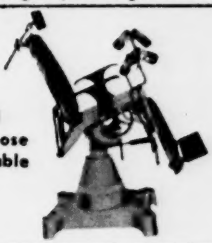
For Every Need In General or Specialized Practice.

The best in examining, treatment and surgical tables.



LEWIS Chair-Table

MARTIN All-Purpose Chair-Table



Write for complete information, giving name of your dealer

Shampaine Co., Dept. B-10 1920 South Jefferson Ave., St. Louis, Mo.

Our Office Nurse

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The October 1 winner is

Henry R. Pear, M.D.
Washington, D. C.

Mail your caption to
The Cartoon Editor
Caption Contest
No. 3
MODERN MEDICINE
84 South 10th St.
Minneapolis 3, Minn.



"I did not say that the assistant must be 'young and single.'"

BILE!
Keep it Flowing in Gallbladder Conditions

CHOLOGESTIN

is an active choleretic and cholagogue. It thins the bile and keeps it moving. Corrects biliary stasis. Dose, 1 tablespoonful in cold water p.c.

TABLOGESTIN

Tablets of Chologestin, 3 tablets equivalent to 1 tablespoonful. Convenient for relief of chronic cholecystitis and cholelithiasis. Dose, 3 tablets with water.

F. H. STRONG COMPANY MM-10
112 W. 42nd St., New York 18, N. Y.
Please send my free sample of TABLOGESTIN together with literature on CHOLOGESTIN.
Dr.....
Street.....
City..... Zone..... State.....



EUPHASED

Trademark

[d-DESOXYEPHEDRINE HYDROCHLORIDE AND ACETYLBROMDIETHYLACETYLCARBAMID SCHENLEY]



combines mood-lifting desoxyephedrine (more potent but less upsetting than amphetamine[1]) with gentle, calming Sedamyl* (not a barbiturate)

SUPPLIED: In bottles of 100 tablets.
Each tablet contains:
2.5 mg. d-desoxyephedrine hydrochloride
0.26 Gm. (4 gr.) Sedamyl (acetylbrom-diethylacetylcarbamid Schenley).

1. Douglas, H. S.: West. J. Surg. 59:238, 1951.

schenley

SCHENLEY LABORATORIES, INC. Lawrenceburg, Indiana

©Schenley Laboratories, Inc. *Trademark of Schenley Laboratories, Inc.

3

Removes intestinal toxins

RESION

- A palatable suspension of multiple adsorbents
- Effective in diarrhea of infants, children and adults
- Controls the nausea and vomiting of pregnancy
- Effective in bacterial gastrointestinal toxicity
- Valuable adjuvant in the treatment of food poisoning, colitis and gastroenteritis

Available: Bottles of 4 and 12 fluidounces.

8 important advantages for ulcer therapy—

RESINAT H-M-B

Resinat	0.5 Gm.
Homatropine methylbromide	1 mg.



1. Quick relief of ulcer pain
2. Speeds healing of peptic ulcer
3. Attracts and binds both pepsin and hydrochloric acid
4. Blocks spasm: relaxes the gastrointestinal tract
5. Coats the crater with a protective film
6. Does not cause acid rebound, alkalosis, constipation or diarrhea
7. Does not remove chlorides, phosphates, minerals or vitamins
8. Pharmacologically inert

Available: Bottles of 36, 100 and 1,000 tablets.

Removes sodium—controls edema

NATRINIL

- To reduce blood pressure in hypertension
- To relieve edema in hypertension, congestive heart failure and cirrhosis
- Controls sodium absorption with minimal dietary restrictions
- Invites patient cooperation by allowing a more palatable diet
- Lessens or eliminates the need for diuretics

Available: Powder, 10 ounce bottles and boxes of 24 individual 10 gram packets.

THE
NATIONAL DRUG CO.

In G.I. infections—diarrhea—nausea of pregnancy

In peptic ulcer

In hypertension, congestive heart failure and cirrhosis

CURRENT

BOOKS *and* PAMPHLETS

This catalogue is compiled from all available sources, American and foreign, to insure a complete listing of the month's releases.

Medicine

ANNUAL REVIEW OF MEDICINE, VOL. III, 1952 *edited by* Windsor C. Cutting *et al.* 450 pp. Annual Reviews, Stanford, Calif. $6

A B C FÜR ZUCKERKRANKE: EIN RATGEBER FÜR DEN KRANKEN *by* Ferdinand Bertram. 4th ed. 67 pp., ill. Georg Thieme, Stuttgart. 3.60 M.

LE MÉDECIN FACE AU MALADE *by* E. Biancani. 119 pp. L'Expansion Scientifique Française, Paris. 300 fr.

LA FUNZIONE EMOBLASTICA DEL SISTEMA ISTIOCITARIO *by* Carlo Bianchi. 280 pp., ill. Istituto Bioterapico Carlevaro Editore, Parma. 3,000 lire

Surgery

TRAITÉ DE THÉRAPEUTIQUE CHIRURGICALE *by* P. Bertrand *and* J. Creyssel. 2 vols., 3,410 pp., ill. G. Doin & Co., Paris. 2,300 fr.

SPEZIELLE CHIRURGIE *by* W. Beyer. 386 pp., ill. Wissenschaftliche Verlagsgesellschaft, Stuttgart, 24 DM.

CLOT-RETRACTION *by* O. E. Budtz-Olsen. 164 pp., ill. Charles C Thomas, Springfield, Ill. $5.50

KORREKTIVE CHIRURGIE DER NASE, DER OHREN UND DES GESICHTES *by* Viktor Frühwald. 2d ed. 105 pp., ill. Wilhelm Maudrich, Vienna. 120 S.

Urology

TUMEURS MALIGUES DE LA VESSIE: TRAITEMENT PAR LA RADIUMTHERAPIE À VESSIE OUVERTE *by* Raymond Darget. 105 pp., ill. Masson & Co., Paris. 1,200 fr.

Ophthalmology

PRINCIPLES OF REFRACTION *by* Sylvester Judd Beach. 158 pp., ill. C. V. Mosby Co., St. Louis. $4

TEXTBOOK OF OPHTHALMOLOGY, VOL. V, THE OCULAR ADNEXA *by* Sir W. Stewart Duke-Elder. 1,082 pp., ill. Henry Kinpton, London. 90*s*.

Neurology

PATTERNS OF ORGANIZATION IN THE CENTRAL NERVOUS SYSTEM, VOL. XXX *edited by* Philip Bard. 581 pp., ill. Williams & Wilkins Co., Baltimore. $12

CEREBRAL MECHANISMS IN BEHAVIOR: THE HIXON SYMPOSIUM *edited by* Lloyd A. Jeffress. 311 pp., ill. John Wiley & Sons, New York City. $6.50

MY FIGHT TO CONQUER MULTIPLE SCLEROSIS *by* Hinton Denny Jonez. 227 pp. Julian Messner, New York City. $3.50

Psychiatry

DYNAMIC PSYCHIATRY *edited by* Franz Alexander *and* Helen Ross. 578 pp. University of Chicago Press, Chicago. $10

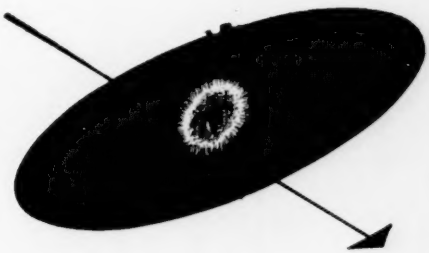
MANIC-DEPRESSIVE PSYCHOSIS AND ALLIED CONDITIONS *by* Leopold Bellak *et al.* 306 pp. Grune & Stratton, New York City. $9.75

FOUNDATIONS OF NEUROPSYCHIATRY *by* Stanley Cobb. 5th ed. 295 pp., ill. Williams & Wilkins Co., Baltimore. $3

TRAUMA, GROWTH AND PERSONALITY *by* Phyllis Greenacre. 340 pp. W. W. Norton Co., New York City. $4.50

Great Potency

in tiny form



the therapeutic multivitamin tablet with B_{12} and Synthetic A

SMALLEST of its kind, an OPTILET provides potent, new advantages in vitamin therapy. Each easy-to-swallow tablet contains therapeutic amounts of six synthetic vitamins plus B_{12}. Since OPTILETS have synthetic vitamin A, there are no allergic reactions, no fishy aftertaste, no "burp." Because they are tablets—not capsules—they can't leak, won't stick together. Therapeutic dose is one OPTILET or more daily. Cost no more than ordinary therapeutic formula vitamins. Available at all pharmacies in bottles of 50, 100 and 1000 tablets. Abbott



Optilets®

(Abbott's Therapeutic Formula Vitamin Tablets)



actual size

Each OPTILET tablet contains:

→ Vitamin A (synthetic)	25,000 U.S.P. units
Vitamin D (Viosterol)	1000 U.S.P. units
Thiamine Mononitrate	10 mg.
Riboflavin	5 mg.
Nicotinamide	150 mg.
→ Vitamin B_{12} (as vitamin B_{12} concentrate)	6 mcg.
Ascorbic Acid	150 mg.

Tuberculosis

DIE HELIOTHERAPIE: FÜNF-UND-VIERZIGJÄHRIGE ERFAHRUNGEN MIT DER SONNENKUR INSBESONDERE BEI DER CHIRURGISCHEN TUBERKULOSE *by* A. Rollier. 176 pp., ill. Urban & Schwarzenberg, Munich. 16 DM.

MODERN PRACTICE IN TUBERCULOSIS *edited by* Thomas Holmes Sellors *and* J. L. Livingstone. 2 vol., 776 pp., ill. Butterworth & Co., London. £7 7*s*.

Pathology

CLINICAL PATHOLOGY DATA *by* C. J. Dickinson. 32 pp. Blackwell Scientific Publications, Oxford. 4*s*. 6*d*.

TEXTBOOK OF PATHOLOGY *by* Sir Robert Muir; *revised by* D. F. Cappell. 6th ed. 1,090 pp., ill. Edward Arnold & Co., London. 50*s*.; Williams & Wilkins Co., Baltimore. $10

Parasitology

PARASITIC ANIMALS *by* Geoffrey Lapage. 351 pp., ill. Cambridge University Press, London. 21*s*.

BIOCHEMISTRY AND PHYSIOLOGY OF PROTOZOA, VOL. I *edited by* André Lwoff. 434 pp., ill. Academic Press, New York City. $8.80

Pharmacology

MEDICINAL CHEMISTRY: CHEMISTRY, BIOCHEMISTRY, THERAPEUTIC AND PHARMACOLOGICAL ACTION OF NATURAL AND SYNTHETIC DRUGS, VOL. II *by* Alfred Burger. 522 pp., ill. Interscience Publishers, New York City. $10

PRACTICAL PHARMACOLOGY *by* Joshua Harold Burn. 88 pp., ill. Blackwell Scientific Publications, Oxford. 12*s*. 6*d*.; Charles C Thomas, Springfield, Ill. $3.25





...ull-scale approach to ...



Atherosclerosis, cirrhosis of the liver, and fatty liver, once considered irreversible degenerative diseases, are now recognized as amenable to new therapeutic methods. Chief among these is the use of lipotropic agents.

CHOLIMETH* *fortified* . . . provides a potent combination of interrelated lipotropes for maximum benefit in these disorders.

1 **350 mg. CHOLINE BITARTRATE** . . . supplying "the most effective lipotropic agent found to date . . ."[1]

2 **100 mg. METHIONINE** . . . "a precursor for choline . . . apparently is necessary for the regeneration of cells."[2]

Plus

3 **100 mg. INOSITOL** . . . "exerts a favorable effect on the lipotropic action of choline and its precursors";[3] inositol and choline given together are more effective than either given alone.[4]

4 **2 mcgm. VITAMIN B_{12} (crystalline)** . . . "one of many food factors essential to fat control";[5] appears necessary for transmethylation processes involved in synthesis of choline.[6]

Literature on request

SUPPLIED: Bottles of 100 and 500.

REFERENCES: 1. Morrison, L. M.: Ann. West. Med. & Surg. 4:665, 1950. 2. Editorial: J.A.M.A. 144:1566, 1950. 3. Weidlein, E. R. Jr.: The Biochemistry of Inositol, Bibliographic Series, Bull. No. 6, Mellon Institute, 1951. 4. Morrison, L. M.: J.A.M.A. 145:1232, 1951. 5. Editorial: South. M. J. 43:171, 1950. 6. Strength, D. R., et al.: J. Nutrition 45:329, 1951.

THE CENTRAL PHARMACAL CO. • SEYMOUR, INDIANA

Products Born of Continuous Research

ARTHRITIS

ONE GELUCAP WEAPON FOR 3-WAY THERAPY



Year after year EDREX has demonstrated its effectiveness as a systemic means of *alleviating pain, reducing swelling, increasing joint mobility.* Rational formula plus GELUCAP FORM provide maximum absorption and utilization.

Send for Sample and Literature.

EDREX VITAMIN E VITAMIN D BILE SALTS



WILCO LABORATORIES

800 N. Clark St., Chicago 10, Ill.



For **CONSTIPATED BABIES**



A gentle laxative modifier of milk. One or two tablespoonfuls in day's formula—or in water for breast fed babies—produce marked change in stool. Send for samples.

BORCHERDT MALT EXTRACT CO.
217 N. Wolcott Ave. Chicago 12, Ill.

Borchardt MALT SOUP *Extract*

FOR FASTEST SPERMICIDAL TIME MEASURABLE



Write for Free Full-Size Sample Tube

A PRODUCT OF D&C

DIAPHRAGM & CHEMICAL CO., CHICAGO 11, ILL.



"A couple of bottles of *Zymelose* will make even old Joe feel at peace with the world!"



Sodium carboxymethylcellulose fortified with brewer's dried yeast

Send your Rx for samples.

Dept. 4-M,

Otis E. Glidden & Co., Inc., Waukesha, Wis.

Patients... I have met

● *The editors will pay $1 for each story published. No contributions will be returned. Send your experiences to the Patients I Have Met Editor, MODERN MEDICINE, 84 South Tenth St., Minneapolis 3, Minn.*

Eddie Cantor's Got Five

"There is nothing really seriously wrong with your wife," I told the anxious husband, "but I think I should warn you that a little angina may be expected."

"No, no, doc!" exclaimed the husband. "We've got three daughters now!"—A.S.

"If the doctors come on blood vessels, I suppose the students come on scholarships."—F.T.

Doesn't Seem Possible

The Ladies' Sewing Circle had listened to her boast of her garden, her cooking, her family, and her dog. When she started on her new doctor, they were fed up.

"And is this new doctor of mine smart," she babbled. "He has an answer for everything."

"My stars," said the hostess sympathetically, "is he really as ignorant as all that?"—T.MC V.



Newest and Most Promising Approach
to the Medical Treatment of Alcoholism

"Antabuse" offers renewed hope for the alcoholic patient. Extensive clinical studies have clearly established the effectiveness of this preparation in the treatment of alcoholism.

Even small amounts of alcohol, taken after "Antabuse" is administered, will produce a highly unpleasant and distressing reaction. Because "Antabuse" produces this strong sensitivity to alcohol, sobriety is self enforced, and the patient is rendered more amenable to the supportive and psychotherapeutic measures necessary for rehabilitation.

"Antabuse" is safe therapy when properly used. It should, however, be employed under close medical supervision and with the full knowledge of the patient.

Tested in MORE THAN 100 clinics...
by MORE THAN 800 qualified investigators
...on MORE THAN 5,000 patients...
and covered by MORE THAN 200
laboratory and clinical reports.

5233

Ayerst

"ANTABUSE"®

Brand of specially prepared and highly purified tetraethylthiuram disulfide

...a "chemical fence" for the alcoholic

Supplied in tablets of 0.5 Gm., bottles of 50 and 1,000.

"Antabuse" is identical with the material used by the original Danish workers, and is supplied under license from Medicinalco, Copenhagen, Denmark. U.S. Pat. No. 2,567,814.

Ayerst, McKenna & Harrison Limited
New York, N.Y. • Montreal, Canada



A concentrated B Complex in a cola-flavored syrup

THIS IS THE FORMULA...

Each 30 cc. (1 fl. oz.) contains:

Thiamine Hydrochloride	36 mg.
Riboflavin	3 mg.
Niacinamide	180 mg.
Panthenol	6 mg.
(Equivalent to approx. 7 mg. calcium pantothenate)	
Pyridoxine Hydrochloride	6 mg.
Vitamin B_{12}	12 mcg.

—in a delightful cola-flavored syrup.

—Bottles of 8 fl. oz. and one pint.

Samples on request

You thought there could be nothing NEW in vitamins . . .

But here it is. . . . Sustinex

TRADE MARK

Fitted to the juvenile appetite
like a soft drink on a summer day.

He can be served soda fountain style . . .
a teaspoonful in a bottle
of his favorite "pop" or taken straight.

Mother doesn't have to force this one . . . the children will actually ask for it.

But not only junior . . . older folks will take it with gusto—

One teaspoonful is the average daily dose.

McNEIL
LABORATORIES, INC.
PHILADELPHIA 32, PA.



MELROSE
UNIFORMS

First choice of medical men for more than forty years. Write for illustrated catalog and name of dealer.

Melrose HOSPITAL UNIFORM CO., INC
95 COMMERCIAL STREET · BKLYN 22, N.Y.

FOR ARTHRITIC PAIN
SYLAPAR
ENTELLS® (BUFFINGTON'S)
(Enteric coated tablets) salicylamide, para-aminobenzoate sodium and ascorbic acid. Powerful analgesic promoting high blood levels and protecting against avitaminosis C.
WRITE FOR PROFESSIONAL SAMPLE
BUFFINGTON'S, INC.
Worcester 8, Mass., U.S.A.



"I shouldn't have let my bottle of *Zymenol* stand around!"

Emulsion with brewer's yeast
Send your Rx for samples.
Dept. 5-M,
Otis E. Glidden & Co., Inc., Waukesha, Wis.

Have You Moved?

If you have changed your address recently notify us promptly so you will not miss any copies of
MODERN MEDICINE
Be sure to indicate your old as well as your new address. Send notices to:
MODERN MEDICINE
84 South Tenth Street
Minneapolis 3, Minnesota
Circulation Department

Like Mother, Like Daughter

My patient, an 8-year-old girl, had had her appendix removed. When the effects of the anesthesia wore off she opened her eyes to see her mother sitting beside the bed. Vaguely she asked, "When do we take the baby home?"

"What baby, dear?" asked the mother, a bit surprised.

"My baby," said the patient. "Every time you come back from the hospital you bring a baby, so I'm taking one home this time."—W.E.D.



Pertinent Data

I work in a blood bank. One day the telephone rang and a masculine voice inquired if we bought blood. I told him that blood was purchased from professional donors only in emergency cases, but I would put his name on the list subject to call if he would give me the necessary information. We got along fine until I asked him his type.

"O," he replied.

"Rh positive or Rh negative?" I asked.

"I'm not sure," he replied after a moment's consideration. "No one has ever told me. But maybe it will help you to know that my wife had twin boys last month."—W.W.H.

*"The minor and major, overt and hidden, temporary and continuing effects on the human body and mind of insufficiency of iodine in the diet . . . "**

ORGANIDIN®

A Demonstrably Superior Iodine Preparation For Internal Use

Recent editorial comment* emphasizes the importance of providing enough iodine in the diet, citing endemic iodine deficiency and trade experience showing substantial loss of iodine from table salt during transportation and storage. A long-range program is recommended to make fully potent iodized table salt universally available to the exclusion of the noniodized variety.

Elevation of blood pressure, with nervous excitement, sleeplessness, tremor and tachycardia may be induced, at least in part, through marginal, often unrecognized deficiencies of iodine. In such conditions empiric administration of iodine may prove beneficial. And in frank hyperthyroidism, iodine therapy is of course definitely indicated.

Organidin (Wampole) is an exceptionally well tolerated, unique preparation of iodine organically combined by reaction with glycerin for internal administration, entirely free of inorganic iodides, negative to starch test solution, and standardized to contain 2.5 Gm. of iodine per 100 cc. Bottles of 30 cc. with dropper (1 minim per drop). *Samples and literature on request.*

*Editorial Comment: N.Y. State J. Med. :2770, 1949.

HENRY K. WAMPOLE & CO., INCORPORATED
Manufacturing Pharmacists Since 1872
PHILADELPHIA 23, PA.



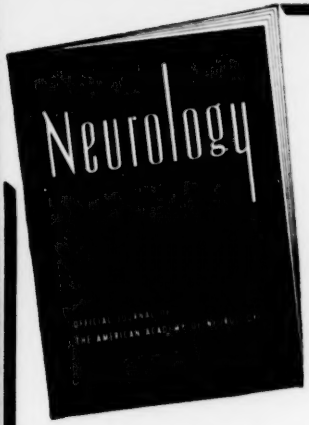




"He's over anxious to go home and start buying the new U. S. Defense Bonds with the higher interest rate"!

INDEX TO ADVERTISERS

Abbott Laboratories 197
American Sterilizer Co. 173
Ar-Ex Cosmetics, Inc. 210
Astra Pharmaceutical Products, Inc. 52
Ayerst, McKenna & Harrison Ltd. 201
Bauer & Black 141
Bausch & Lomb Optical Co. 27
Bayer Co., The 145
Becton, Dickinson & Co. 47
Borcherdt Malt Extract Co. 200, 206
Borden Co., The 130-131
Brewer & Co., Inc. 147
Buffington's, Inc. 204
Burroughs Wellcome & Co. (U.S.A.), Inc. 37
Carnrick, G. W., Co. 45
Central Pharmacal Co., The 199
Chicago Pharmacal Co. 182
Chilcott Laboratories, Inc. . . . 5, 138-139, 185
Ciba Pharmaceutical Products, Inc. . 4th Cover
Columbus Pharmacal Co. 135
Colwell Publishing Co. 34
Daniel, John B., Inc. 55
Denver Chemical Mfg. Co., Inc. 40
Desitin Chemical Co. 35
Diaphragm & Chemical Co. 200
Endo Products, Inc. 155
Fellows Medical Mfg. Co., Inc. 15, 163
Fleet, C. B., Co., Inc. 13
Fleming-Hall Tobacco Co., Inc. 188
Glidden, Otis E., & Co., Inc. 200, 204
Harrower Laboratory, Inc., The 19-26
Hoffmann-LaRoche, Inc. 61-62
Homemakers' Products Corp. 39
Irwin, Neisler & Co. 177-178
Kinney & Co. 143
Kremers-Urban Co. 183
Lakeside Laboratories, Inc. 66-67
Lavoris Co., The 36
Lederle Laboratories Division 54
MacGregor Instrument Co. 31
McNeil Laboratories, Inc. 32-33, 202-203
Maltbie Laboratories, Inc. 168-169
Mead Johnson & Co. 159-160
Melrose Hospital Uniform Co., Inc. 204
Merilley & James, Ltd. 172
Merrell, Wm. S., Co., The . . . . . 2nd Cover
National Drug Co., The 194-195
Neurology 207
New York Pharmaceutical Co. 198
Num Specialties 198
O'Leary, Lydia, Inc. 171
Organon, Inc. 137
Patch, E. L., Co., The 53
Pfizer, Chas. & Co., Inc. 49-51, 190
Picker X-Ray Corp. 133
Pitman-Moore Co. 69
Procter & Gamble Co., The 56-57
Raymer Pharmacal Co. 152
Raytheon Mfg. Co. 46
Reed & Carnrick 153
Riker Laboratories, Inc. 181
Ritter Co., Inc. 59
Robins, A. H., Co., Inc. . . . 43-44, 65, 186-187
Roerig, J. B., & Co. 10, 150-151
Royal Metal Mfg. Co. 167
Rystan Co., Inc. 41
Schenley Laboratories, Inc. 38, 193
Searle, G. D., & Co. 208-209
Shampaine Co. 191
Sharp & Dohme 3
Sherman Laboratories 7
Shield Laboratories 4
Smith, Kline & French Laboratories 29
Smith, Martin H., Co. 157
Spencer Studios 206
Squibb, E. R., & Sons 9
Strasenburgh, R. J., Co. 149
Strong, F. H., Co. 192
Tailby-Nason Co. 175
Upjohn Co., The 16-17
Vestal, Inc. 184
Vick Chemical Co. 189
Wampole, Henry K., & Co., Inc. 205
Westwood Pharmaceuticals 58
Wilco Laboratories 200
Winthrop-Stearns, Inc. . . . . 3rd Cover
Wyeth, Inc. 70, 165



Neurology IS FOR YOU, TOO

NEUROLOGY is your best source of concise practical information on diseases of the nervous system

Every practitioner is frequently faced with medical problems associated with the nervous system. Nervous dysfunction is often among the first symptoms of many systemic disorders. It is important, therefore, to keep abreast of diagnostic procedures and treatment methods in the neurologic field.

Tremendous advances have been made in the understanding and treatment of such illnesses as poliomyelitis, the epilepsies, brain injuries, parkinsonism, myasthenia gravis, peripheral neuritis. In addition to reports on these developments, the journal also features a regular treatment review which gives the practitioner a comprehensive picture of the symptomatology of specific neurologic disorders together with critical evaluation of current treatment methods.

Sample copy sent on request

Please Mention MODERN MEDICINE

Neurology 84 SOUTH TENTH STREET, MINNEAPOLIS 3, MINN.

Please send me the current copy of NEUROLOGY and add my name to the subscription list. One year (12 issues) $12.00.

NAME_____

ADDRESS_____

CITY_____ ZONE_____ STATE_____

☐ Check enclosed ☐ Bill me later 10-1

22 Published Reports Covering Treatmen

Comprising the reports published in the literature to date whic

AUTHORS	No. of Patients	Chronic, Resistant to Other Therapy	TYPES OF ULCERS				RE
			Duodenal	Jejunal	Stomal	Gastric	Go
Grimson, Lyons, Reeves	100	100	93	7			
Friedman	15	15	14			1	
Bechgaard, Nielsen, Bang, Gruelund, Tobiassen	26	26	21			5	
McHardy, Browne, Edwards, Marek, Ward	162		162				1
Segal, Friedman, Watson	34	34	34[a]				
Brown, Collins	117	99	117				
Asher	77		65		7	5	
Rodriguez de la Vega, Reyes Diaz	5	4	5				
Winkelstein	116	116	102	8		6	1
Hall, Hornisher, Weeks	18	18	18				
Maier, Meili	38	38	24			14[a]	
Meyer, Jarman	25	18	25				
Poth, Fromm	37	37	37				
Plummer, Burke, Williams	41	41	41				
McDonough, O'Neil	104	100	104				
Broders	60	60	58		1	1	
Legerton, Texter, Ruffin	11		11				
Holoubek, Holoubek, Langford	76	69	76				
Ogborn	42		39	2		1	
Shaiken	48	48	48				
Johnston	145	145	145				1
Rossett, Knox, Stephenson	146		141			5	1
TOTALS	1443	968	1380	17	8	38	11
PERCENTAGES		67.8	95.6	1.2	0.6	2.6	8

During the past two years, more than 200 references to Banthine therapy in peptic ulcer and other parasympathotonic conditions have appeared in medical literature. Of these reports, 22 have presented specific facts and figures on the results of treatment in a total of 1443 peptic ulcer patients, 67.8 per cent of whom were reported as chronic or resistant to other therapy. These results are tabulated above and show:

"Good" relief of symptoms was obtained in 81.3 per cent of the 1405 patients on whom reports were available.

"Complete" evidence of healing was obtained in 70.5 per cent of the 783 patients on whom reports were available.

In all but 9.3 per cent, relief of pain was "good" or "fair." In all but 22.9 per cent, evidence of healing was "complete" or "moderate."

During treatment, 26 patients required surgery or developed complications which required discontinu-

1443 Peptic Ulcer Patients with Banthine

ive specific facts and figures of the results of treatment

F SYMPTOMS fly Pain)		Surgery or Compli-cations[1]	Side Effects Requiring Discontinuance of Drug[2]	EVIDENCE OF HEALING			
Poor	No Report			Complete	Moderate	None	No Report
4		5		47		19	29
4	6[3]			2			13
6				8	6	12	
11		3	1	14	9	7	129
		7	2	5		8	14
8		5	8	55	9	8	40
16			16		9	21	47
1					3	2	
14				53		18	45
1	6[5]			18			
4[7]				10	2	5	21
4							25
1				33	3	1	
5				38		3	
31			11	4		11	89
6				10	1	49[9]	
							11
10		4	10	26		10	36
							42
3		2		33	10	3	
2			2	143		2	
			4[10]	53			93
131	12	26	54	552	52	179	634
9.3			3.7	70.5	6.6	22.9	

1. Not included in tabulations.
2. Included in "Relief of Symptoms" as "Poor" and in "Evidence of Healing" as "None."
3. Four had no symptoms when Banthine therapy was begun.
4. Of which seven were penetrative lesions and five partially obstructive.
5. No symptoms were present in four.
6. Two with symptoms only; no demonstrable ulcer.
7. Three were psychopathic patients and one had a ventricular ulcer of the lesser curvature.
8. Roentgen findings after treatment period of two weeks; forty-seven had duodenal deformity.
9. All returned to work within a week.
10. In these four, after relief of symptoms, Banthine was discontinued because of urinary retention.

ance of the drug before results could be evaluated. Of the remaining 1417 patients, only 3.7 per cent experienced side effects sufficiently annoying to require discontinuance of the drug.

*Volume containing complete references, with abstracts of 39 additional reports, will be furnished on request by

G. D. SEARLE & Co., P. O. Box 5110, Chicago 80, Ill.



The Case of the MASKED BEAUTIES

WHILE we are prone to regard youth as an exciting, care-free age, it is filled with many psychological stresses and uncertainties. For the young girl, especially, there are many problems —the date for the school prom, good grades in classes, regard of colleagues, choice of a career, emotional and romantic involvements, etc.

It is unfortunate then that skin problems are often greatest at the very age when complexion beauty seems so very important. Acne is, in the main, a problem of adolescence. It imposes profound psychological barriers that lead to introvert personalities and lack of confidence. Unless properly treated, it results in permanent disfigurement and scarring. Because of this, acne should always be considered seriously and treated with medical care.

Recently your Medical Detective has observed a number of cases of permanent damage in attempts at home treatment of acne. Take the cases of Miss M. and Miss R.

These young ladies were currently in the "acne age," that is, in the age when acne affects some 50% to 60% of young people. Because they were embarrassed by their complexions, they had been using heavy, opaque masking pastes, applied to the skin with a wet sponge, to conceal the lesions. While the pastes hid the blemishes, they were difficult to remove, plugged follicular orifices, retarded normal skin respiration, and caused more comedones and milia. The skin was pitted in many places as a result of trying to express these plugs by home methods.

The problem of masking the blemishes, from a psychological viewpoint, was very real. For this reason, your Medical Detective was pleased to have available a liquid, complexion-tinted masking lotion of light texture that (1) concealed the lesions and (2) made possible the incorporation of precipitated sulfur and resorcinol monoacetate as therapeutic agents. Thus a dual purpose of hiding the blemishes and providing treatment was accomplished at the same time.

This complexion-tinted liquid is called AR-EX Foundation Lotion. It has a neutral pH, is not astringent, and contains no oils or waxes to aggravate the acne condition. It washes off easily and completely with bland soap and water.

AR-EX Foundation Lotion, either with or without required incorporated medicaments, has proven the best topical management for acne we have yet seen. In the cases of Miss M. and Miss R., it effectively helped to keep the condition under control.

THE MEDICAL DETECTIVE



A Masking Vehicle in ACNE

Complexion-tinted, hypo-allergenic, non-astringent—AR-EX Foundation Lotion offers 2-way aid in acne treatment: (1) It masks embarrassing blemishes; (2) Provides an excellent vehicle for sulfur, resorcinol, salicylic acid or other medicaments. Send for samples.

AR-EX COSMETICS, INC.
1036 W. Van Buren St., Chicago 7, Ill.

Send for FREE SAMPLES





Potent and prompt in its action, Pipanol hydrochloride has shown great usefulness against parkinsonism. Pipanol markedly diminishes muscular rigidity; decreases intensity of tremor and improves the gait. It also elevates the mood and increases alertness.

Pipanol is well tolerated. If started in small doses which are gradually increased until optimal benefit is obtained, more than 80 per cent of the patients notice no side effects.

Supplied: Scored tablets of 2 mg. in bottles of 100 and 1000. *Write for pamphlet giving administration and dosage details.*

Pipanol, trademark reg. U. S. Pat. Off.

Winthrop-Stearns INC.

NEW YORK 18, N. Y. • WINDSOR, ONT.

For the patient under tension

Trasentine®-Phenobarbital

(brand of adiphenine)

relief of smooth-muscle spasm, easing of pain

Worry, anxiety, fear—such "pressures" often account for visceral spasticity. To offset them, Trasentine-Phenobarbital provides mild sedation—as well as effective spasmolysis, rapid relief of pain.

Whenever you suspect a psychosomatic factor in visceral spasm, Trasentine-Phenobarbital is a logical prescription. Each tablet contains 50 mg. Trasentine hydrochloride and 20 mg. phenobarbital. Bottles of 100 and 500. *Ciba Pharmaceutical Products, Inc., Summit, New Jersey.*

Ciba



2/1871M

MODERN MEDICINE
84 S. 10 St., Minneapolis 3, Minn.

FORM 3547 REQUESTED